

DEPARTMENT OF THE INTERIOR, CANADA
HON. W. J. ROCHE, Minister; W. W. COX, Deputy-Minister
FORESTRY BRANCH—BULLETIN No. 52
R. H. CAMPBELL, Director of Forestry.

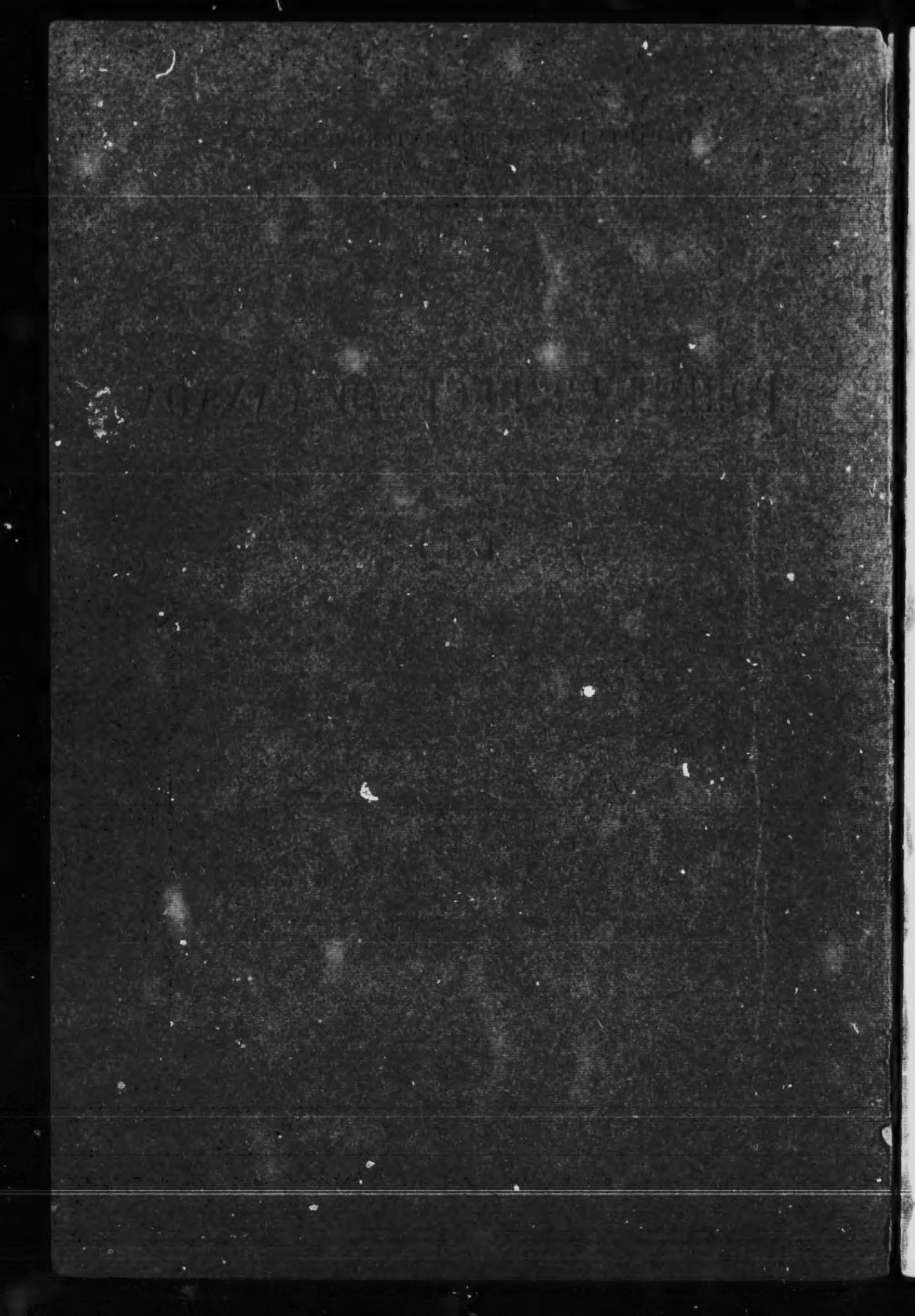
FOREST PRODUCTS OF CANADA

1913

COMPILED BY

R. G. LEWIS, B.Sc. F.
ASSISTED BY W. E. DEXTER and W. GUY H. BOYCE

OTTAWA
GOVERNMENT PRINTING BUREAU
1915



DEPARTMENT OF THE INTERIOR, CANADA
HON. W. J. ROCHE, Minister; W. W. CORY, Deputy-Minister
FORESTRY BRANCH—BULLETIN No. 52
R. H. CAMPBELL, Director of Forestry.

FOREST PRODUCTS OF CANADA

1913

ERRATUM.

On page 13, Table II, Ontario Lumber, Total Value for White Pine, 1913, should read \$15,396,269, instead of \$1,539,269.

FILED BY

EWIS, B.Sc. F.

ASSISTED BY W. E. DEXTER and W. GUY H. BOYCE

OTTAWA
GOVERNMENT PRINTING BUREAU
1915



DEPARTMENT OF THE INTERIOR, CANADA

HON. W. J. ROCHE, Minister; W. W. CONY, Deputy-Minister

FORESTRY BRANCH—BULLETIN No. 52

R. H. CAMPBELL, Director of Forestry.

FOREST PRODUCTS OF CANADA

1913

COMPILED BY

R. G. LEWIS, B.Sc. F.

ASSISTED BY W. E. DEXTER & J. GUY H. BOYCE

**OTTAWA
GOVERNMENT PRINTING BUREAU
1915**



LETTER OF TRANSMITTAL

FORESTRY BRANCH,
DEPARTMENT OF THE INTERIOR,

OTTAWA, February 16, 1915.

SIR,—I beg to transmit herewith reports on the use of wood for (1) lumber, lath and shingles, (2) pulpwood and (3) poles and cross-ties, throughout the Dominion during the year 1913. These reports have already been published separately, and are now combined into one pamphlet for the greater convenience of readers. I would recommend the publication of this pamphlet as Bulletin No. 52 of this Branch.

Your obedient servant,

R. H. CAMPBELL,
Director of Forestry.

W. W. CORY, Esq., C.M.G.,
Deputy Minister, Department of the Interior,
Ottawa.

TABLE OF CONTENTS.

LUMBER.

	Page
Total Lumber Cut by Provinces (Table "A").....	8
Total Lumber Cut by Kinds of Wood (Table "B").....	9
Hardwoods vs. Softwoods—	
Total Quantity and Percentage of Total Lumber Cut Formed by Each (Table "C").....	10
Comparison of Quantities Produced (Table "D").....	11
Lumber Production by Provinces—	
British Columbia (Table I).....	12
Ontario (Table II).....	13
Quebec (Table III).....	14
New Brunswick (Table IV).....	15
Nova Scotia (Table V).....	16
Saskatchewan (Table VI).....	17
Manitoba (Table VII).....	17
Alberta (Table VIII).....	18
Prince Edward Island (Table IX).....	19
Lumber Production by Kinds of Wood—	
Spruce (Table 1).....	20
Douglas Fir (Table 2).....	20
White Pine (Table 3).....	21
Hemlock (Table 4).....	22
Red Pine (Table 5).....	22
Cedar (Table 6).....	23
Tamarack (Table 7).....	24
Birch (Table 8).....	25
Maple (Table 9).....	26
Balsam Fir (Table 10).....	27
Yellow Pine (Table 11).....	27
Basswood (Table 12).....	28
Jack Pine (Table 13).....	28
Elm (Table 14).....	29
Beech (Table 15).....	30
Poplar (Table 16).....	30
Aspen (Table 16A).....	31
Cottonwood (Table 16B).....	31
Balsam or Balm (Table 16c).....	32
Ash (Table 17).....	32
Oak (Table 18).....	33
Minor Species (Table 19).....	34
Chestnut, Hickory, Butternut, Cherry, Black Gum, Walnut, Tulip, Sycamore, Sassafras.	
LATH.	
Lath Cut by Provinces (Table 20).....	35
Lath Cut by Kinds of Wood (Table 21).....	36

SHINGLES.

Shingle Cut by Provinces (Table 22).....	Page 37
Shingle Cut by Kinds of Wood (Table 23).....	38

PULPWOOD.

Pulpwood, 1912 and 1913, by Provinces (Table No. 1).....	39
Diagram No. 1: Pulpwood, 1912 and 1913, by Provinces.....	40
Pulpwood, 1912 and 1913, by kinds of Wood (Table No. 2).....	40
Diagram No. 2: Pulpwood, 1912 and 1913, by Kinds of Wood.....	41
Pulpwood, 1913, by Provinces, Kinds of Wood and Processes (Table No. 3) " " "(Table No. 4).....	41 43
Canadian Pulpwood Exported Unmanufactured vs. that manufactured in Canada, 1912 and 1913 (Table 5).....	42 44

WOOD-PULP.

Export of Wood-pulp, 1912 and 1913 (Table 6).....	46
Imports of Wood-pulp, 1912 and 1913 (Table 7).....	47

POLES.

Poles Purchased, 1912 and 1913, by Kinds of Wood and Chief Uses (Table 1).....	48
Poles Purchased, 1912 and 1913, by Length-classes and Kinds of Wood (Table 2).....	50
Diagram: Number of Poles Purchased, 1912 and 1913.....	51

CROSS-TIES.

Cross-ties Purchased, 1912 and 1913, by Kinds of Wood (Table 3).....	52
Diagram: Cross-ties Purchased in 1912 and 1913.....	53
Cross-ties Purchased, 1912 and 1913, by Steam Railways by Kinds of Wood (Table 4).....	54
Cross-ties Purchased, 1912 and 1913, by Electric Railways by Kinds of Wood (Table 5).....	56
Preservative Treatment.....	57

APPENDICES.

List of Saw-Mill Proprietors (Appendix 1)—	
Ontario.....	61
Quebec.....	66
New Brunswick.....	70
Nova Scotia.....	72
Prince Edward Island.....	74
Manitoba.....	75
Saskatchewan.....	75
Alberta.....	75
British Columbia.....	76
List of Active Canadian Pulp-mills (Appendix 2).....	78

DIAGRAMS.

Lumber Production in Canada, 1913.....	To face p. 10
Map showing Pulp-mills in Canada in 1913.....	Inside back cover.

Page
37
38

39

40

40

41

41

43

42

44

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

FORESTRY BRANCH BULLETIN NO. 52.

TABLE A.

TOTAL LUMBER CUT, 1913, BY PROVINCES—Number of Mills Reporting, Total Quantity of Lumber Cut, Total Value, Per Cent of Increase, Per Cent Distribution and Average Value per M Ft., B.M.

Province.	Rank.		Number of Firms Reporting		Quantity	
	1912	1913	1912	1913	1912	1913
Canada					M Ft. B.M., M Ft. B.M.	
British Columbia			2,558	2,187	4,389,723	3,816,643
Ontario	2	1	176	159	1,313,782	1,173,647
Quebec	1	2	811	685	1,385,186	1,101,066
New Brunswick	3	3	842	684	677,215	630,346
Nova Scotia	4	4	199	177	449,738	399,247
Saskatchewan	5	5	361	322	312,763	247,722
Manitoba	6	6	23	25	157,255	114,800
Alberta	8	7	48	50	39,535	71,961
Prince Edward Island	7	8	46	40	47,478	44,462
	9	9	52	45	6,771	6,391

	Value of Lumber	Per cent Increase or Decrease in Cut over 1912	Per cent Distribution of Cut		Average Value per M Ft. B.M.	
			1912	1913	1912	1913
Canada	\$ 65,736,438	13.1†	100.0	100.0	15.83	17.24
British Columbia	16,428,218	10.7†	29.9	30.7	13.50	14.00
Ontario	25,772,617	20.5†	31.6	28.8	19.33	23.41
Quebec	10,618,528	6.9†	15.4	16.5	15.79	16.86
New Brunswick	5,758,849	11.2†	10.2	10.5	13.44	14.42
Nova Scotia	3,669,264	12.2†	7.1	7.2	13.77	13.36
Saskatchewan	1,008,482	27.0†	3.6	3.0	16.12	16.62
Manitoba	946,458	82.0	0.9	1.9	13.79	13.15
Alberta	608,902	6.4†	1.1	1.2	15.71	13.69
Prince Edward Island	85,120	5.6†	0.2	0.2	13.78	13.32

†Decrease from 1912 to 1913.

Table "B" gives the details of the lumber production in Canada in 1913 by kinds of wood.

TABLE B.

LUMBER CUT, 1913, BY KINDS OF WOOD—Quantity Cut, Total Value and Average Value per M Ft., B.M., with Per Cent of Increase over 1912 and Per Cent Distribution.

Kind of Wood.	Rank.		Quantity.		Per cent of Increase or Decrease over 1912.	Total Value of Lumber.	Per Cent Distribution of Total Cut.		Average value per M Ft. B.M.		
	1912.	1913.	1912.	1913.			1913.	1912.	1913.	1912.	1913.
			M Ft. B.M.	M Ft. B.M.		\$		\$ cts.	\$ cts.		
Total...			4,389,723	3,816,642		12.1† 65,796,438	100.0	100.0	15 83	17 24	
Spruce.....	1	1	1,409,311	1,274,215	9.6†	19,126,990	32.1	33.4	14 46	15 01	
Douglas Fir.....	2	2	889,821	793,143	10.9†	10,888,978	20.3	20.8	12 33	13 74	
White Pine.....	2	3	911,427	678,330	25.6†	13,502,041	20.8	17.8	20 98	27 28	
Hemlock.....	4	4	333,238	306,342	8.1†	4,505,767	7.6	8.0	13 45	14 71	
Red Pine.....	6	5	142,294	144,320	1.4	2,688,653	3.2	3.8	18 16	18 63	
Cedar.....	5	6	156,022	101,053	35.2†	1,487,633	3.6	2.6	17 98	14 72	
Tamarack.....	10	7	73,177	96,325	31.6	1,327,672	1.7	2.5	15 15	13 77	
Birch.....	7	8	100,267	79,369	20.9†	1,424,236	2.3	2.1	16 36	17 95	
Maple.....	9	9	77,827	73,580	5.5†	1,303,315	1.8	1.9	18 91	17 71	
Balsam Fir.....	8	10	78,841	64,957	17.6†	845,955	1.8	1.7	13 62	13 02	
Yellow Pine.....	11	11	53,960	58,939	9.2	874,014	1.2	1.5	16 30	14 83	
Basswood.....	12	12	52,921	36,009	32.0†	773,381	1.2	0.9	17 71	21 48	
Jack Pine.....	14	13	31,605	35,404	12.0	508,840	0.7	0.9	14 55	14 37	
Elm.....	13	14	32,949	30,766	6.6†	651,699	0.7	0.8	20 44	21 25	
Beech.....	15	15	15,417	12,983	15.8†	208,332	0.3	0.3	15 45	16 05	
Poplar.....	17	16	7,523	11,136	48.0	153,376	0.2	0.3	13 30	13 68	
Ash.....	16	17	12,386	10,509	15.2†	234,303	0.3	0.3	20 68	22 30	
Oak.....	18	18	7,283	6,348	12.8†	207,156	0.2	0.2	29 82	32 68	
Chestnut.....	19	19	1,538	1,317	14.4†	25,372	*	*	22 26	19 26	
Hickory.....	20	20	667	647	3.0†	23,726	*	*	32 04	36 67	
Butternut.....	21	21	573	516	9.9†	12,306	*	*	22 05	23 85	
Cherry.....	22	22	351	246	29.9†	6,171	*	*	28 16	25 09	
Black Gum.....	25	23	43	125	190.7	3,000	*	*	24 00	24 00	
Walnut.....	24	24	61	40	34.4†	2,017	*	*	31 85	50 42	
Tulip.....	23	25	150	20	86.7†	358	*	*	13 17	17 90	
Sycamore.....	28	26	2	11	450.0	255	*	*	22 00	23 18	
Sassafras.....	29	27		1		45	*	*		45 00	
Willow.....	26	28	27				*	*	12 89		
Ironwood.....	27	29	2				*	*	20 00		

*Less than one tenth of one per cent.

†Decrease from 1912 to 1913.

Canadian saw-mills in 1913 reported sawing twenty seven different kinds of lumber. Most of these kinds of wood are in reality groups of different species, but as these are not always separated in the reports sent in, a further classification into separate species has been attempted in only a few cases. These are discussed more fully under the individual tables dealing with the different kinds of lumber.

While spruce still formed about a third of the total production, some important changes have taken place in the relative order of the other different kinds of wood cut. The cut of white pine decreased by over a quarter, while that of Douglas fir decreased by only 10.9 per cent. Douglas fir consequently moved up to second place on the list.

00925056

The cut of red pine increased by 1.4 per cent, while that of cedar decreased by 35.2 per cent, so red pine advances from sixth to fifth place. Among the ten most important woods the greatest decrease occurred in the case of cedar and the greatest increase in the case of tamarack. Among the hardwoods, changes in relative position are more frequent, as these woods, with a few exceptions, are cut from isolated stands and lands that have been lumbered over, pine, spruce and hemlock in the past. The supply of such woods is very variable from year to year.

Willow and ironwood, which were cut in 1912, were not reported in 1913. Sassafras, which has not been reported since 1911, was cut in 1913. Some of the hardwoods, such as black gum, tulip, sycamore and sassafras, are occasionally in very limited quantities in southwestern Ontario, mostly on Niagara Peninsula and along the north shore of Lake Erie. They might belong to the hardwood forest of the central United States, and cannot be considered as typical Canadian species, as their range is so restricted and their occurrence so comparatively rare in Canada.

The first five woods on the list increased in price at the mill from 1912 to 1913. Out of the total of twenty seven, only eight were reported at a lower price than in 1912.

HARDWOODS vs. SOFTWOODS.

Table "C" gives a comparison of the production of hardwoods and softwoods in Canada in 1913 by provinces.

The wood of all coniferous trees is classed as "softwood," irrespective of the relative hardness of the different kinds. Similarly, the wood of all the broad-leaved trees is classed as "hardwood" although the wood of some of these kinds may be softer than some of the so-called "softwoods."

TABLE C.

SOFTWOODS vs. HARDWOODS—Total Quantity and Percentage each Forms of the Total Lumber Production in Canada and in Each Province.

SOFTWOODS			HARDWOODS		
Province.	Quantity.	Per Cent of Total.	Province.	Quantity.	Per Cent of Total.
Canada.....	M Ft. B.M.		Canada.....	M Ft. B.M.	
Canada.....	3,553,620	83.1	Canada.....	263,613	6.9
British Columbia.....	1,171,178	99.8	British Columbia.....	2,469	0.2
Ontario.....	938,805	85.3	Ontario.....	162,261	14.7
Quebec.....	562,745	89.3	Quebec.....	67,601	10.7
New Brunswick.....	389,978	97.7	New Brunswick.....	9,269	2.3
Nova Scotia.....	256,115	93.2	Nova Scotia.....	18,607	6.8
Saskatchewan.....	114,768	99.9	Saskatchewan.....	31	*
Manitoba.....	69,573	96.7	Manitoba.....	2,388	3.3
Alberta.....	44,308	99.7	Alberta.....	154	0.3
Prince Edward Island.....	5,558	87.0	Prince Edward Island.....	833	13.0

*Less than one tenth of one per cent.

As the percentage of softwoods in every province is large (in no case less than 85 per cent in 1913) the relative importance of the different provinces was about the same in the production of softwoods as in table "A", where the

dar decreased
Among the
case of cedar
ardwoods the
a few except-
ered over for
very variable

ed in 1913.
3. Some of
as, are cut
ostly on the
They rightly
not be con-
d and their

om 1912 to
at a lower

s and soft-
pective of
of all the
f some of

Forms of

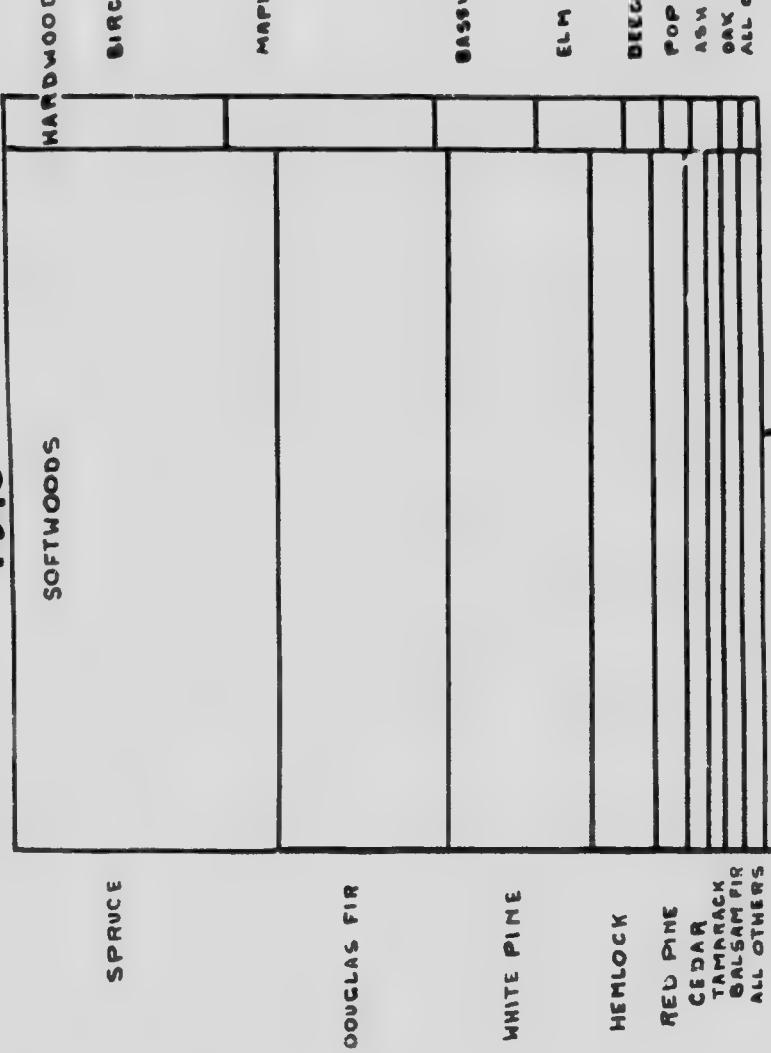
Per
Cent
of
Total.

6.9
0.2
14.7
10.7
2.3
6.8

3.3
0.3
13.0

se less
vinces
re the

LUMBER PRODUCTION IN CANADA
1913



CANADA.

S. H.

BRITISH COLUMBIA.



S.

H.
MAPLE

ONTARIO.

ELM

HEMLOCK

RED PINE

SPRUCE

ALL OTHERS

BIRCH
BASSWOOD
BEECH
ASH
ALL OTHERS

S.

QUEBEC.

BIRCH

BASSWOOD

WHITE PINE
HEMLOCK
DALCAM PINE
ALL OTHERS

SPRUCE

S.

NEW BRUNSWICK.

BIRCH

MAPLE

BEECH
ASH
ELM
ALL OTHERS

S.

SPRUCE

BIRCH

MAPLE

BEECH
ASH
ELM
ALL OTHERS

S.

NOVA SCOTIA.

BIRCH

MAPLE

BEECH
ASH
ELM
ALL OTHERS

S.

SPRUCE

HEMLOCK

ALL OTHERS

SASKATCHEWAN.

ALL OTHERS

MANITOBA.

SPRUCE

ALBERTA.

SPRUCE
ALL OTHERS
SPRUCE
ALL OTHERS

PRINCE EDWARD ISLAND.

SCALE
THIS SQUARE REPRESENTS
1,000,000,000 FEET, S.E.





two classes of lumber are combined. With regard to the hardwoods, however, the order of importance is somewhat different. Ontario was the greatest hardwood-producing province, while British Columbia ranked next to last on the list in this respect. The hardwoods formed a higher proportion of the total production of lumber in Ontario than they did in any other province.

Table "D" gives a comparison of the production of softwoods and hardwoods in Canada in 1913 by kinds of wood.

TABLE D.

SFTWOODS VS. HARDWOODS—Comparison of Quantities of each Produced in Canada in 1913 and Percentage each Forms of the Total Production.

SOFTWOODS.			HARDWOODS.		
Kind of Wood.	Quantity.	Per Cent of Total.	Kind of Wood.	Quantity.	Per Cent of Total.
	M Ft. B.M.			M Ft. B.M.	
Total.....	3,553,629	100.0	Total.....	363,613	100.0
Spruce.....	1,274,216	35.9	Birch.....	79,359	30.1
Douglas Fir.....	793,143	22.3	Maple.....	73,580	27.9
White Pine.....	678,330	19.1	Basswood.....	36,009	13.7
Hemlock.....	306,342	8.6	Elm.....	30,766	11.6
Red Pine.....	144,320	4.1	Beech.....	12,963	4.9
Cedar.....	101,053	2.8	Poplar.....	11,136	4.2
Tamarack.....	66,325	1.8	Ash.....	10,509	4.0
Balsam Fir.....	64,987	1.8	Oak.....	6,348	2.4
Yellow Pine.....	58,939	1.7	Chestnut.....	1,317	0.5
Jack Pine.....	35,404	1.0	All others.....	1,606	0.6

The seven most important kinds of lumber in Canada in 1913 were softwoods. Among the thirteen most important woods only three were hardwoods. Birch, maple, basswood and elm in the order named are the most important, and these together made up 83.5 per cent of the total production of hardwoods.

In table "D" under "All others" are included such woods as hickory, butternut, cherry, black gum ("pepperidge") walnut, tulip ("yellow poplar" or "whitewood"), sycamore and sassafras. These woods, as a rule, are cut only in southern Ontario or Quebec and are of little importance in the Canadian lumber market.

In this bulletin is inserted a diagram which shows graphically the details of the lumber production in Canada in 1913.

The squares represent by their area the production of lumber in the Dominion as a whole and in each province separately. The vertical dividing line in each case separates softwoods from hardwoods. In some provinces the quantity of hardwoods is so small that when it is reduced to the scale of this diagram, it occupies a space of less width than the line bounding the square.

The horizontal lines separate the different kinds of wood, whether softwood or hardwoods. The sections marked "All others" represent totals of the less important woods produced.

Each separate section in the diagram represents by its area the relative quantity of wood produced of that kind in 1913.

LUMBER PRODUCTION BY PROVINCES.

Tables I to IX show the lumber production in each of the nine Canadian provinces, by kinds of wood.

TABLE I.

BRITISH COLUMBIA LUMBER, 1912 AND 1913, BY KINDS OF WOOD--Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M	M. M. Ft. B.M.		\$	\$ c.	\$ c.
Total.....	150	1,312,782	1,173,647	100.0	16,428,218	13.50	14.00
Douglas Fir.....	115	889,646	792,852	67.6	10,895,007	13.33	13.73
Tamarack.....	34	63,050	86,062	7.3	1,182,014	15.16	13.62
Cedar.....	88	125,042	82,627	7.0	1,210,276	18.61	14.65
Spruce.....	66	99,057	62,302	5.3	960,934	14.54	15.42
Yellow Pine.....	37	53,960	58,939	5.0	874,014	16.30	14.83
Hemlock.....	53	49,716	39,052	3.3	549,062	13.80	14.06
White Pine.....	23	15,543	29,783	2.5	429,224	13.54	14.41
Balsam Fir.....	21	13,742	15,258	1.3	227,012	15.17	14.88
Jack Pine.....	8	3,387	4,306	0.4	61,522	14.94	14.29
Poplar (Cottonwood).....	7	646	2,381	0.2	38,069	19.85	15.99
Birch.....	4	1	62	•	804	12.00	12.97
Maple.....	2	3	26	•	280	20.00	10.77

*Less than one tenth of one per cent.

The largest mills in Canada are located in British Columbia, where the average mill-cut was 7,381,428 feet, board measure, in 1913.

The only important change in the relative order of the species was in the case of tamarack. The production of this wood increased by 36.5 per cent from 1912 to 1913, bringing this wood up from fourth to second place on the list. Douglas fir still formed over two thirds of the production. The production of cedar lumber showed a great decrease. This wood is the most important shingle material in Canada at the present time, and its importance in this respect should not be overlooked in considering the relative importance of the wood among the other Pacific Coast species.

The most expensive softwood in British Columbia is spruce, at an average value of \$15.42. Of the entire production, 97.3 per cent was made up of coniferous woods, or softwoods.

TABLE II.

ONTARIO LUMBER, 1912 AND 1913, BY KINDS OF WOOD—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M. Ft. B.M.	
		1912.	1913.			1912.	1913.
		M. Ft. B.M.	M. Ft. B.M.		\$	cts.	\$ cts.
Total.	616	1,386,186	1,101,000	100.0	35,778,617	10.33	23.41
White Pine	400	754,892	516,098	46.9	1,539,269	21.26	29.83
Hemlock	467	162,005	142,731	13.0	2,304,988	13.89	16.78
Red Pine	118	128,431	132,046	12.0	2,461,800	19.28	18.56
Spruce	322	110,020	104,485	9.5	1,897,652	16.46	15.29
Maple	433	62,754	61,213	5.6	1,107,384	20.03	18.00
Elm	453	29,178	27,305	2.5	593,853	29.98	21.75
Birch	290	28,336	25,665	2.3	512,005	19.23	19.95
Jack Pine	47	22,119	24,297	2.2	352,510	14.59	14.51
Basswood	462	34,704	22,867	2.1	501,959	16.81	21.95
Cedar	165	13,791	9,493	0.9	151,484	16.20	15.96
Beech	192	10,151	8,701	0.8	145,464	16.41	16.77
Ash	306	6,542	5,077	0.5	142,606	22.52	25.14
Oak	228	5,578	5,061	0.5	171,334	30.73	33.72
Balsam Fir	126	4,644	4,364	0.4	69,478	18.39	15.92
Tamarack	148	5,940	4,691	0.4	66,324	15.03	14.14
Poplar (Aspen)	56	2,674	1,714	0.1	20,879	12.61	12.18
Chestnut	35	1,511	1,307	0.1	25,072	21.58	19.18
Poplar (Balsam)	51	—	1,060	0.1	17,296	—	16.32
Hickory	35	661	625	0.1	23,260	31.97	37.22
Poplar (Cottonwood)	19	—	500	—	5,990	—	11.80
Butternut	47	264	178	—	5,100	22.96	28.65
Cherry	58	218	176	—	4,635	29.77	26.34
Black Gum	1	43	125	—	3,000	24.00	24.00
Walnut	10	61	35	—	1,617	31.85	46.20
Tulip	3	180	20	—	358	13.17	17.90
Sycamore	2	2	11	—	255	22.00	23.18
Sassafras	1	—	1	—	45	—	45.00
Willow	—	2	—	—	24.00	—	—
Ironwood	—	2	—	—	20.00	—	—

*Less than one-tenth of one per cent.

†Total for 1912 includes aspen, balsam and cottonwood poplar.

The average mill-cut in Ontario in 1913 was 1,607,396 feet as compared to 1,708,000 feet in 1912.

The first fifteen woods on the list retained their relative positions, with two exceptions. The production of basswood in Ontario in 1913 was a reduction of over a third from the cut in 1912, and this wood dropped from sixth to ninth place on the list. A reduction of over a fifth in the cut of tamarack in the province caused this wood to drop down from thirteenth to fifteenth place. The only increases to be noted are in the cases of red pine, jack pine and the poplar group, (aspen and balsam poplar and cottonwood).

The average prices reported increased, on the average, by \$4.08, the greatest increase among the more important woods being in the price of white pine and amounting to \$8.57.

Ontario cuts a greater variety of woods than any other province. Counting the poplar group (aspen and balsam poplar and cottonwood) as one kind, a total of twenty five kinds were reported. Douglas fir and yellow pine are the only Canadian woods not produced in this province.

TABLE III.

QUEBEC LUMBER, 1912 AND 1913, BY KINDS OF WOOD—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Total	684	677,215	630,316	100.0	10,618,528	15.79	16.85
Spruce	642	406,615	412,259	65.4	6,498,301	14.42	15.76
White Pine	323	85,204	72,140	11.4	1,049,202	22.85	22.86
Hemlock	378	42,534	38,491	6.1	543,514	13.01	14.12
Birch	400	50,017	34,124	5.4	645,204	16.25	18.91
Balsam Fir	335	24,873	20,746	3.3	304,920	14.50	14.70
Basswood	297	18,091	13,121	2.1	271,077	19.44	20.66
Red Pine	73	11,045	9,750	1.5	197,271	17.55	20.23
Maple	234	9,856	7,364	1.2	129,049	15.43	17.52
Cedar	215	12,048	6,727	1.1	105,433	13.61	15.67
Ash	181	5,602	4,756	0.8	89,603	18.77	18.84
Elm	166	3,752	3,449	0.5	59,636	16.22	17.29
Poplar (Aspen)	103	1,850†	1,709	0.3	26,417	12.90	15.46
Beech	101	2,268	1,596	0.3	26,364	15.89	16.52
Tamarack	54	1,319	1,472	0.2	22,734	14.23	15.44
Jack Pine	30	844	1,160	0.2	18,561	14.57	16.00
Oak	62	1,043	611	0.1	15,819	26.98	25.89
Butternut	42	288	326	0.1	6,966	21.83	21.37
Poplar (Cottonwood)	19	—	238	*	3,465	—	14.56
Poplar (Balsam)	13	—	200	*	2,290	—	11.45
Cherry	31	133	70	*	1,536	25.52	21.94
Hickory	3	6	22	*	466	40.00	21.18
Chestnut	1	27	10	*	300	60.00	30.00
Walnut	1	0	5	*	400	—	80.00

*Less than one-tenth of one per cent.

†Total for 1912 includes aspen, balm and cottonwood poplar.

While the number of mills in Quebec and the number in Ontario is almost the same, the average production of mills in Quebec is only 921,558 feet as compared to 1,607,396 feet in Ontario. The larger number of small neighbourhood or custom mills in Quebec cutting wood for the farmers accounts for this difference.

While a small increase was reported in the cut of the most important wood, spruce, the next ten most important woods decreased in production from 1912 to 1913. Decreases in the cut of birch and cedar caused changes in the order of importance of the first ten woods on the list, birch dropping from third to

fourth place and cedar from seventh to ninth. The hardwoods in this province form 10.8 per cent of the total production of lumber. The average price at the mill was \$1.06 more than in 1912. The first fifteen woods all showed increases in price, the greatest of which was \$2.73 in the case of red pine.

TABLE IV.

NEW BRUNSWICK LUMBER, 1912 AND 1913 BY KINDS OF WOOD—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Total	177	449,738	399,247	100.0	\$ 5,758,849	13.44	14.43
Spruce	164	353,066	316,703	79.3	\$ 4,618,212	13.35	14.58
White Pine	88	28,290	31,287	7.8	545,847	16.68	17.45
Hemlock	80	20,936	21,952	5.5	271,736	11.72	12.38
Balsam Fir	65	28,670	17,311	4.3	162,160	11.88	9.37
Birch	72	7,873	5,749	1.4	84,622	13.42	14.72
Cedar	15	5,100	2,154	0.5	19,802	17.59	9.19
Maple	33	2,164	1,945	0.5	27,770	14.47	14.28
Beech	20	1,011	838	0.2	11,850	12.96	14.14
Poplar (Aspen)	10	567†	641	0.2	6,731	12.43	10.50
Jack Pine	5	708	358	0.1	4,882	11.19	13.64
Red Pine	16	802	201	0.1	2,959	13.17	14.72
Ash	5	121	32	*	866	10.78	27.06
Basswood	4	36	21	*	345	14.64	16.43
Poplar (Balsam)	3	—	13	*	156	—	12.00
Tamarack	2	357	12	*	318	12.02	26.50
Butternut	1	21	12	*	240	13.62	20.00
Oak	2	—	11	*	241	—	21.91
Elm	3	16	7	*	112	11.44	16.00

*Less than one-tenth of one per cent.

†Total for 1912 includes aspen and balsam poplar.

While only 177 mills reported from New Brunswick in 1913 these mills cut a high average quantity, namely, 2,255,633 feet of lumber. This is the highest average mill production in Eastern Canada.

The cut of white pine increased by 10.6 per cent and that of hemlock by 4.9 per cent, while that of balsam fir decreased by 39.6 per cent. This resulted in balsam fir dropping from second to fourth place on the list. Otherwise the relative order of the first eight woods remained the same as in 1912. The greatest decrease among the more important woods was in the production of cedar and amounted to 57.8 per cent. The hardwoods formed only 2.4 per cent of the production. The average price of lumber increased by \$0.98 in this province in 1913.

TABLE V.

NOVA SCOTIA LUMBER, 1912 AND 1913, BY KINDS OF WOOD—Quantity
Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent
Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Total	322	312,763	274,722	100.0	\$ 3,669,284	\$ 11.77	\$ 13.38
Spruce	312	200,426	156,311	56.9	2,108,770	13.89	13.49
Hemlock	204	57,755	63,851	23.2	742,627	12.90	11.63
White Pine	142	27,370	28,918	10.5	478,540	15.94	16.55
Birch	173	13,438	13,095	4.8	171,317	12.48	13.08
Balsam Fir	74	5,469	5,251	1.9	59,165	10.95	11.27
Maple	70	3,054	2,946	1.1	37,404	10.43	12.70
Beech	58	1,878	1,770	0.6	23,643	11.08	13.36
Red Pine	29	2,003	1,657	0.6	24,400	15.72	14.78
Oak	26	658	614	0.2	15,338	26.77	30.84
Poplar (Aspen)	8	171†	95	*	1,038	11.54	10.93
Jack Pine	6	380	51	*	826	14.57	16.20
Cedar	1	—	50	*	600	—	12.00
Ash	5	99	42	*	1,106	20.55	26.33
Poplar (Balsam)	3	—	35	*	397	—	11.34
Tamarack	4	36	26	*	273	16.11	10.50
Poplar (Cottonwood)	1	—	10	*	130	—	13.00
Willow	—	25	—	*	—	12.00	—
Elm	—	—	1	*	—	20.00	—

*Less than one-tenth of one per cent.

†Total for 1912 includes aspen, balsam and cottonwood poplar.

With the exception of Prince Edward Island the mills in Nova Scotia cut a lower average per mill than those of any other province. This average in 1913 was 853,174 feet. Custom mills and small portable mills cutting out small stands of scattered timber are very numerous in this province.

Although the production of white pine and hemlock increased from 1912 to 1913, while that of all the other woods decreased, the relative positions of the six most important woods remained the same as in 1912.

The average price of lumber decreased in this province, although the decrease amounted to only 41 cents. The price of spruce and hemlock, which form over 80 per cent of the production, decreased, while that of the majority of the remaining woods increased. The hardwoods in Nova Scotia formed 6.9 per cent of the total production of lumber in the province in 1913.

LUMBER, 1913.

17

TABLE VI.

SASKATCHEWAN LUMBER, 1912 AND 1913, BY KINDS OF WOOD—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
Total.....	23	157,255	114,800	100.0	1,908,482	16 12	16 62
Spruce.....	22	155,943	112,750	98.2	1,878,352	16 12	16 66
Tamarack.....	5	1,108	1,813	1.6	27,193	16 84	15 00
Jack Pine.....	2	204	206	0.2	2,472	12 00	12 00
Poplar (Aspen).....	3		31		465		15 00

*Less than one tenth of one per cent.

The three prairie provinces, Manitoba, Saskatchewan and Alberta, are chiefly engaged in the manufacture of spruce lumber. The few other kinds reported are relatively unimportant. The average mill-cut in Saskatchewan was 4,592,000 feet coming second only to British Columbia in this respect. The four kinds of lumber reported were produced in about the same relative proportions in 1913 as in 1912. The only increase shown was in the production of tamarack. The average price increased by 50 cents, the only decrease being in the price of tamarack. Aspen poplar, the only hardwood cut in the province, formed less than a tenth of one per cent of the total.

TABLE VII.

MANITOBA LUMBER, 1912 AND 1913, BY KINDS OF WOOD—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
Total.....	50	39,535	71,961	100.0	946,458	13 79	13 15
Spruce.....	46	36,694	64,617	89.8	858,007	13 76	13 28
Jack Pine.....	7	238	2,783	3.9	32,585	15 53	11 71
Tamarack.....	21	1,240	2,172	3.0	27,544	15 18	12 68
Poplar (Aspen).....	18	1,320†	2,066	2.9	23,681	12 80	11 46
Poplar (Balsam).....	10		268	0.4	3,210		11 98
Birch.....	4	7	27	*	771	30 00	28 56
Oak.....	5	7	26	*	624	21 71	24 00
Cedar.....	1	23	1	*	18	18 00	18 00
Elm.....	1	1	1	*	18	18 00	18 00
Balsam Fir.....		5				18 00	

*Less than one tenth of one per cent.

†Total for 1912 includes aspen and balsam poplar.

Manitoba was the only province in Canada reporting an increase in lumber production in 1913. The mills cut, on an average, 1,439,220 feet each. The cu' of every kind of wood but cedar increased, the greatest increase being with jack pine.

Some of the eastern hardwoods, such as birch, oak and elm, are reported in small quantities from eastern Manitoba, but are commercially unimportant.

TABLE VIII.

ALBERTA LUMBER, 1912 AND 1913, BY KINDS OF WOOD—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Total.....	40	47,478	44,463	100.0	\$88,962	\$ 15.71	\$ 18.00
Spruce.....	39	42,964	41,704	93.8	566,250	15.83	13.58
Jack Pine.....	17	3,705	2,237	5.0	35,407	14.69	15.83
Douglas Fir.....	2	215	291	0.7	3,971	15.00	13.65
Tamarack.....	3	112	76	0.2	1,260	17.41	16.58
Poplar (Balsam).....	3	.....	70	0.2	965	.....	13.79
Poplar (Aspen).....	4	477†	59	0.1	724	12.83	12.27
Birch.....	1	5	25	.....	325	20.00	13.00

*Less than one-tenth of one per cent.

†Total for 1912 includes aspen and balsam poplar.

Alberta's forty active mills cut an average of 1,111,550 feet of lumber each in 1913. Douglas fir, which is cut by only two mills on the east slope of the Rocky Mountains, showed an increase, while the other woods on the list were produced in smaller quantities than in 1912.

TABLE IX.

PRINCE EDWARD ISLAND LUMBER, 1912 AND 1913, BY KINDS OF WOOD—
Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and
Per Cent Distribution, 1913.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M Ft. B.M.	M Ft. B.M.	\$	\$ cts.	\$ cts.	
Total	45	6,771	6,391	100.0	\$5,120	13 78	13 32
Spruce.....	44	3,920	3,085	48.3	40,512	13 51	16 13
Balsam Fir.....	30	1,438	2,030	31.8	23,220	12 66	11 44
Birch.....	32	590	612	9.6	9,188	14 48	15 01
Hemlock.....	16	292	265	4.1	3,842	13 10	14 50
White Pine.....	6	128	104	1.6	2,959	28 45	28 45
Maple.....	19	176	86	1.3	1,428	14 10	16 60
Beech.....	15	109	78	1.2	1,011	14 94	12 96
Red Pine.....	3	13	66	1.0	1,980	25 00	30 00
Poplar (Aspen).....	3	18†	43	0.7	513	21 00	11 93
Jack Pine.....	1	40	6	0.1	75	12 50	12 50
Oak.....	1	—	5	0.1	200	—	40 00
Elm.....	1	1	4	0.1	80	18 00	20 00
Poplar (Balsam).....	2	—	3	•	50	—	16 67
Ash.....	1	22	2	•	30	13 64	15 00
Tamarack.....	1	6	1	•	12	20 00	12 00
Cedar...	1	18	1	*	20	20 00	20 00

*Less than one tenth of one per cent.

†Total for 1912 includes aspen and balsam poplar.

The smallest province in Canada has also the smallest average mill-production of 142,022 feet. The timber in Prince Edward Island occurs only in small isolated stands, many of which are merely farmer's woodlots. This material is sawn almost entirely by small neighborhood or custom mills. The hardwoods in this province formed 13.1 per cent of the total in 1913; this province is exceeded only by Ontario in this respect.

LUMBER PRODUCTION BY KINDS OF WOOD.

Tables 1 to 18 show the details of the production of lumber by kinds of wood in the different provinces of Canada in 1912 and 1913.

Under "Commercial species included" are given the accepted common name and the botanical name (in italic) of each species that goes to make up the total. Rare and commercially unimportant species are not mentioned. Following the botanical name is a list of abbreviations representing the provinces in which that particular species is cut; where the abbreviation is enclosed in brackets, the species rarely occurs or is of little commercial importance in the province.

SPRUCE.

Commercial species included:—

White spruce (*Picea canadensis*)—All provinces.

Red spruce (*Picea rubra*)—P.E.I., N.S., N.B., Que., (Ont.).

Black spruce (*Picea mariana*)—All provinces.

Engelmann spruce (*Picea Engelmanni*)—B.C., Alta.

Sitka spruce (*Picea sitchensis*)—*

TABLE 1.

SPRUCE LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada.....	1,686	1,469,311	1,274,216	100.0	10,126,390	14.46	15.01
Quebec.....	642	406,615	412,259	32.4	6,498,301	14.42	15.76
New Brunswick.....	164	353,066	316,703	24.9	4,618,212	13.35	14.58
Nova Scotia.....	312	200,426	156,311	12.3	2,108,770	13.89	13.49
Saskatchewan.....	22	155,943	112,750	8.8	1,878,352	16.12	16.66
Ontario.....	321	110,626	104,485	8.2	1,597,652	16.46	15.29
Manitoba.....	46	36,694	64,617	5.1	858,007	13.76	13.28
British Columbia.....	66	99,057	62,302	4.8	960,934	14.54	15.42
Alberta.....	39	42,964	41,704	3.3	566,250	15.83	13.58
Prince Edward Island.....	44	3,020	3,085	0.2	40,512	13.51	13.13

White spruce probably forms the greatest part of the spruce cut in Canada, as this tree is abundant in every province but British Columbia, and its range in this province is not definitely known. A small quantity cut in the Yukon Territory is included in the total for British Columbia. It is the most important spruce in Quebec, Ontario and the three prairie provinces. Red spruce is the important species in the Maritime Provinces and southeastern Quebec. It is found only to a very limited extent in Ontario and does not occur west of this province. Black spruce has a wider range than white spruce and is found further south in British Columbia, although it is of less commercial importance than any of the spruces. The tree is largely confined to low swampy situations and seldom reaches saw-timber size. The important spruces in British Columbia are Engelmann and Sitka spruce. Engelmann spruce is a Rocky Mountain species and is cut in some Alberta mills. Sitka spruce is confined to the coast region of British Columbia. The production of Engelmann spruce in British Columbia in 1913 was about 32,795,000 feet, board measure, valued at \$15.11 a thousand. The production of Sitka spruce was 28,396,000 feet, valued at \$15.34 per thousand.

DOUGLAS FIR.

Commercial species included:—

Douglas fir (*Pseudotsuga mucronata*)—B.C., (Alta.).

TABLE 2.

DOUGLAS FIR LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada.....	117	M Ft. B.M. 889,861	M Ft. B.M. 793,143	100.0	\$ 10,895,978	\$ cts. 12.33	\$ cts. 13.74
British Columbia.....	115	889,646	792,852	99.96	10,895,007	12.33	13.74
Alberta.....	2	215	291	0.04	3,971	15.00	13.65

Douglas fir is cut in Canada in larger quantities than any other single species. Timbers of this wood can be obtained in larger dimensions than of any other Canadian species. The tree has been unfortunately misnamed, as it is not a fir (*Abies*) but belongs to a distinct genus of which there are no other species in Canada. The wood is sold under many erroneous names, two of the commonest being "Douglas spruce" and "Oregon pine", which have resulted from attempts made to classify it with the woods of the east. "Yellow" and "red" fir are names caused by differences in growth and do not refer to different species of this wood. The northern range of this tree in British Columbia is imperfectly known. It crosses the Rocky Mountains and is cut in small quantities in Alberta. The largest trees, producing the finest lumber, are cut in the Puget Sound district of the Coast Region.

WHITE PINE.

Commercial species included:—

White pine (*Pinus strobus*)—P.E.I., N.S., N.B., Que., Ont., (Man.).
Western white pine (*Pinus monticola*)—B.C.

TABLE 3.

WHITE PINE LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
Canada.....	982	911,427	678,330	100.0	18,502,941	20.36	27.28
Ontario.....	400	754,892	516,098	76.1	15,396,269	21.26	29.83
Quebec.....	323	85,204	72,140	10.6	1,649,202	22.85	22.86
New Brunswick.....	88	28,290	31,287	4.6	545,847	16.68	17.45
British Columbia.....	23	15,543	29,783	4.4	429,224	13.54	14.41
Nova Scotia.....	142	27,370	28,918	4.3	478,540	15.94	16.55
Prince Edward Island.....	6	128	104	*	2,959	28.45	28.45

*Less than one tenth of one per cent.

White pine is cut from one species only in Eastern Canada. The tree grows throughout the Maritime Provinces and in Ontario and Quebec south of the height of land between the St. Lawrence and Hudson Bay. It just reaches southeastern Manitoba, and has been cut in small quantities in that province. The western species is confined to British Columbia and is a smaller tree than the eastern. It seldom occurs in pure stands and is not at present of great commercial importance.

HEMLOCK.

Commercial species included:—

Eastern hemlock (*Tsuga canadensis*)—P.E.I., N.S., N.B., Que., Ont.
Western hemlock (*Tsuga heterophylla*)—B.C.

TABLE 4.

HEMLOCK LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada	1,198	323,238	306,343	100.0	4,565,767	13.48	14.71
Ontario	467	162,005	142,731	46.6	2,394,986	13.89	16.78
Nova Scotia	204	57,755	63,851	20.8	742,027	12.90	11.63
British Columbia	53	49,716	39,652	12.7	549,062	13.80	14.06
Quebec	378	42,534	38,491	12.6	543,514	13.01	14.12
New Brunswick	80	20,936	21,952	7.2	271,736	11.72	12.38
Prince Edward Island	16	292	265	0.1	3,842	13.10	14.59

Eastern hemlock is found in Canada throughout the same range as white pine, not extending, however, as far north or as far west as pine. The wood is important chiefly on account of its cheapness and abundance. The western species, which is cut only in British Columbia, is a much more valuable wood and has none of the objectionable qualities of the eastern species.

RED PINE.

Commercial species included:—

Red or Norway pine (*Pinus resinosa*)—P.E.I., N.S., N.B., Que., Ont., (Man.).

TABLE 5.

RED PINE LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada	239	142,294	144,320	100.0	2,688,653	18.16	18.63
Ontario	118	128,431	132,646	91.9	2,461,800	18.28	18.56
Quebec	73	11,045	9,750	6.8	197,271	17.55	20.23
Nova Scotia	29	2,003	1,657	1.2	24,490	15.72	14.78
New Brunswick	16	802	201	0.1	2,959	13.17	14.72
Prince Edward Island	3	13	66	*	1,980	25.00	30.00

*Less than one tenth of one per cent.

Red or Norway pine is a similar wood to white pine, but is usually harder and stronger and contains more resin. Many sawmills do not distinguish between the two species and therefore some of the lumber attributed to white pine in Table 3 is probably red or Norway pine. This tree has the same distribution as white pine, but is often found further north.

CEDAR.

Commercial species included:—

White cedar (*Thuja occidentalis*)—P.E.I., N.S., N.B., Que., Ont., (Man.).

Western red cedar (*Thuja plicata*)—B.C.

TABLE 6.

CEDAR LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent. Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		M Ft. B.M.	M Ft. B.M.			\$ cts.	\$ cts.
Canada.	480	156,922	101,053	100.0	1,487,633	17.98	14.72
British Columbia.....	88	125,042	82,827	81.8	1,210,276	18.61	14.65
Ontario.....	168	13,791	9,493	9.4	151,484	16.20	15.96
Quebec.....	215	12,048	6,727	6.7	105,433	13.61	15.67
New Brunswick.....	15	5,100	2,154	2.1	19,802	17.59	9.19
Nova Scotia.....	1	.....	50	•	600	.....	12.00
Prince Edward Island.....	1	18	1	•	20	20.00	20.00
Manitoba.....	1	23	1	•	18	18.00	18.00

*Less than one tenth of one per cent.

While eastern cedar is quite common in New Brunswick, it is almost a curiosity in Nova Scotia. It is cut in greatest quantities in Ontario and Quebec, where it grows as far north as James Bay. The tree occurs in small isolated stands around Lake Winnipeg, but is comparatively rare in Manitoba and is entirely absent from the forests of Saskatchewan and Alberta. The western species is a much larger tree, usually with an enormously enlarged or buttressed base; it is one of the most important shingle woods of Canada, as it provides larger shingle bolts free from defects than the eastern species. The western species is found in Canada only in British Columbia, but extends to the north along the Coast into Alaska.

TAMARACK.

Commercial species included:—

Tamarack (*Larix laricina*)—All provinces.

Western larch (*Larix occidentalis*)—B.C.

FORESTRY BRANCH BULLETIN No.

TABLE 7.

TAMARACK LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province,	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada.....	272	73,177	96,325	100.0	1,377,672	\$ 18.18	13.77
British Columbia.....	34	63,059	86,062	89.3	1,182,014	15.16	13.73
Ontario.....	148	5,940	4,691	4.9	66,324	15.03	14.14
Manitoba.....	21	1,240	2,172	2.3	27,544	15.18	12.68
Saskatchewan.....	5	1,108	1,813	1.9	27,193	16.84	15.00
Quebec.....	54	1,319	1,472	1.5	22,734	14.23	15.44
Alberta.....	3	112	76	0.1	1,260	17.41	16.58
Nova Scotia.....	4	36	26	*	273	16.11	10.50
New Brunswick.....	2	357	12	*	318	12.0	26.50
Prince Edward Island.....	1	6	1	*	12	20.00	12.00

*Less than one tenth of one per cent.

Tamarack grows as far north as any tree species in America, reaching, with black and white spruce, the limits of tree-growth. The species forms a large percentage of the forest of interior Labrador, and extends to the mouth of the Mackenzie River and through the Yukon Territory to interior Alaska. In the southern part of its range the tree reaches commercial size, but to the north it is confined to sphagnum swamps or muskegs and is of no commercial importance as lumber.

Western larch is a much larger tree and is found only in British Columbia. An alpine species (*Larix Lyalli*) is found through the Rocky Mountains and the mountains of interior British Columbia, but it seldom occurs below 6,000 ft., and is of no commercial importance as lumber.

BIRCH.

Commercial species included:—

- Yellow birch (*Betula lutea*)—P.E.I., N.S., N.B., Que., Ont.
- Sweet birch (*Betula lenta*)—N.S., N.B., Que., Ont.
- Paper birch (*Betula alba* var. *papyrifera*)—All provinces.
- Western birch (*Betula occidentalis*)—B.C.

TABLE 8.

BIRCH LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Average Value Ft. B.M. 1913. \$ cts.	Province.	No. of Active Mills Report- ing.	Quantity.		Per Cent Distribu- tion. 1913.	Total Value. 1913. \$	Average Value Per M' Ft. B.M. 1912. \$ cts. 1913. \$ cts.	
			1912.	1913.			1912.	1913.
13.77			M' Ft. B.M.	M' Ft. B.M.		\$	\$ cts.	\$ cts.
13.73	Canada	876	100,267	79,350	100.0	1,424,236	16.26	17.06
14.14	Quebec	400	50,017	34,124	43.0	645,204	16.25	18.91
12.68	Ontario	290	28,336	25,065	32.3	512,005	19.23	19.95
15.00	Nova Scotia	173	13,438	13,095	16.5	171,317	12.48	13.06
15.44	New Brunswick	72	7,873	5,749	7.3	84,622	13.42	14.72
16.58	Prince Edward Island	32	590	612	0.8	9,198	14.48	15.01
10.50	British Columbia	4	1	62	0.1	804	12.00	12.07
26.50	Manitoba	4	7	27	*	771	30.00	28.56
12.00	Alberta	1	5	25	*	325	20.00	13.00

*Less than one tenth of one per cent.

The cut of birch, (Canada's most important hardwood) is made up of the wood of some seven species, three of which are of no commercial importance. Yellow birch is the most important commercially in point of quantity produced, and its wood is probably the most valuable. The tree grows as far north as Lake Abitibi and extends westward about halfway along the north shore of Lake Superior.

Sweet birch (*Betula lenta*) is common in the Eastern United States. Its range in Canada is imperfectly understood. Many of the so-called sweet birch logs are cut from mature trees of yellow birch, which closely resembles this species. The tree is not commercially important in Canada. Paper birch is a much inferior tree to the two preceding species, but has a much more extensive range. It does not, as a rule, reach very large dimensions, and is not important as a lumber-producing tree at the present time. Western birch grows only in British Columbia and while comparatively rare it reaches larger dimensions and produces more clear lumber to the tree than any other birch in America.

MAPLE.

Commercial species included:—

Sugar maple (*Acer saccharum*)—P.E.I., N.S., N.B., Que., Ont.

Silver maple (*Acer saccharinum*)—P.E.I., N.S., N.B., Que., Ont.

Red maple (*Acer rubrum*)—P.E.I., N.S., N.B., Que., Ont.

Broad-leaved maple (*Acer macrophyllum*)—B.C.

TABLE 9.

MAPLE LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution 1913.

Province	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.		Total Value.	Average Value Per M. Ft. B.M.		
		1912.	1913.	1913.	1913.		1912.	1913.	1913.
M FT. B.M. M FT. B.M.									
Canada	791	77,827	78,590	100.0	1,389,315	18.81	18.81	17.71	18.00
Ontario	433	62,574	61,213	83.2	1,107,384	20.03	20.03	17.52	17.52
Quebec	234	9,856	7,364	10.0	139,049	15.43	15.43	12.70	12.70
Nova Scotia	70	3,056	2,946	4.0	37,404	10.43	10.43	12.28	12.28
New Brunswick	33	2,164	1,945	2.7	27,770	14.47	14.47	16.60	16.60
Prince Edward Island	19	176	86	0.1	1,428	14.10	14.10	10.77	10.77
British Columbia	2	3	26	*	280	20.00	20.00		

*Less than one tenth of one per cent.

There are six or eight species of maple that reach tree size in Canada, but only the four mentioned above can be properly considered as commercially important as lumber-producing trees.

Sugar maple is the most important as to both quantity and quality of lumber produced, and this tree probably provides the greater part of the maple lumber sold. The two soft maples, silver maple and red maple, are inferior in quality and are nowhere as abundant as sugar, or hard, maple. These three trees are cut only in Eastern Canada and are not found west of Ontario. Sugar maple is found in the same range as yellow birch and has the most extensive range of any of the maples. Silver and red maple, usually sold as "soft maple," produce inferior lumber and their range does not extend as far north.

Broad-leaved maple is cut only in limited quantities in British Columbia.

BALSAM FIR.

Commercial species included:—

- Balsam fir (*Abies balsamea*)—All provinces but B.C.
- Mountain fir (*Abies lasiocarpa*)—B.C., Alta.
- Amabilis fir (*Abies amabilis*)—B.C. (Coast Region).
- Lowland fir (*Abies grandis*)—B.C. (Coast Region).

TABLE 10.

BALSAM FIR LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

		verage Value M Ft. B.M.
		cts. \$ cts.
12.	1913.	
cts. \$ cts.		
91 17 71		
03 18 09		
43 17 52		
43 12 70		
47 14 28		
10 16 60		
00 10 77		

Province.	No. of Active Mills Reporting.	Quantity		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada	651	78,941	64,957	100.0	\$43,933	13 82	13 82
New Brunswick	63	24,670	17,311	26.7	162,160	11 88	9 37
Quebec	325	24,873	20,746	31.9	304,920	14 50	14 70
British Columbia	21	13,742	15,255	23.5	227,012	15 17	14 88
Nova Scotia	74	5,469	5,281	8.1	59,165	10 95	11 27
Ontario	126	4,644	4,364	6.7	69,478	18 39	15 92
Prince Edward Island	30	1,438	2,030	3.1	23,220	12 66	11 44
Manitoba		5				18 00	

*Less than one tenth of one per cent.

All the balsam fir cut in Canada except in British Columbia is of one species, and this therefore forms over three quarters of the total production. The British Columbia cut is made up chiefly of mountain fir, which is sawn in the mills in the interior, and smaller quantities of amabilis fir from the coast. Some lowland fir is cut on Vancouver Island.

YELLOW PINE.

Commercial species included:

Western yellow, or bull, pine (*Pinus ponderosa*)—B.C.

TABLE 11.

YELLOW PINE LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada	37	53,960	58,939	100.0	\$74,014	16 30	16 83
British Columbia	37	53,960	58,939	100.0	\$74,014	16 30	14 83

Western yellow pine is the most important timber tree over a large area of interior British Columbia, and is one of the few species which reach timber size in the Dry Belt. It is not found east of the Columbia-Kootenay Valley.

BASSWOOD.

Commercial species included:—

Basswood (*Tilia americana*)—P.E.I., N.S., N.B., Que., Ont.

TABLE 12.

BASSWOOD LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada.....		M Ft. B. M.	M Ft. B. M.		\$	\$ cts.	\$ cts.
	763	52,921	36,000	100.0	773,381	17 71	21 46
Ontario.....	462	34,794	22,867	63.5	501,951	16 81	21 95
Quebec.....	297	18,091	13,121	36.4	271,077	19 44	20 66
New Brunswick.....	4	36	21	0.1	345	11 64	16 43

There is only one species of basswood in Canada, although five others are found in the United States. The tree is commercially important only in southern Ontario and Quebec, being sawn only occasionally in the Maritime Provinces.

JACK PINE.

Commercial species included:—

Jack pine (*Pinus Banksiana*)—All provinces east of B.C.Lodgepole pine (*Pinus Murrayana*)—Alta., B.C.

TABLE 13.

JACK PINE LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada.....	123	M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
		31,665	35,404	100.0	588,840	14 55	14 37
Ontario.....	47	22,119	24,297	68.6	352,510	14 59	14 51
British Columbia.....	8	3,367	4,306	12.2	61,522	14 94	14 29
Manitoba.....	7	238	2,783	7.9	32,585	15 53	11 71
Alberta.....	17	3,705	2,237	6.3	35,407	14 69	15 83
Quebec.....	30	44	1,160	3.3	18,561	14 57	16 00
New Brunswick.....	5	708	358	1.0	4,882	11 10	13 64
Saskatchewan.....	2	204	206	0.6	2,472	12 00	12 00
Nova Scotia.....	5	380	51	0.1	826	14 57	16 20
P. E. Island.....	1	40	6	*	75	12 50	12 50

*Less than one tenth of one per cent.

Jack pine is cut in every province in Canada east of the Rocky Mountains, and probably produced about 30,000,000 feet of lumber in 1913. The tree is cut in Alberta as far north as lumbering operations are carried on; in this province, however, it meets the eastern limit of lodgepole pine, the "jack pine" of the Pacific slopes. The two trees occur together in the foothills of the Rockies and in northern Alberta, and are usually not separated by lumbermen. Lodgepole pine extends down the east slope to the prairie line, and a small isolated stand exists in the so-called "Cypress Hills". In the Rocky Mountains and the mountains of Interior British Columbia, the tree is of considerable importance on account of the large areas on which it is practically the only species. On the Coast, the tree is gradually reduced in size to a prostrate shrub in situations exposed to the salt winds. It is often called "shore' pine" on the Coast and is sometimes considered as a separate variety. The total cut of lodgepole pine in Canada would be in the neighborhood of 5,000,000 feet. Pitch pine (*Pinus rigida*) occurs in the Eastern Provinces but is a scrubby tree of no importance for saw-timber.

ELM.

Commercial species included:

- White elm (*Ulmus americana*)—P.E.I., N.S., N.B., Que., Ont., (Man., Sask.).
- Rock elm (*Ulmus racemosa*)—Ont., Que.
- Red elm (*Ulmus fulva*)—Ont., Que.

TABLE 14.

ELM LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
Canada	624	32,919	30,766	100.0	653,699	20 44	21 25
Ontario	453	29,178	27,305	88.8	503,853	20 98	21 75
Quebec	166	3,752	3,449	11.2	59,636	16 22	17 29
New Brunswick	3	16	7	•	112	11 44	16 00
P. E. Island	1	1	4	•	80	20 00	20 00
Manitoba	1	1	1	•	18	18 00	18 00
Nova Scotia		1			20 00		

*Less than one tenth of one per cent.

White elm lumber is sawn in greatest quantities in Quebec and Ontario, although small quantities are produced in the Maritime Provinces and Manitoba. The tree is found occasionally in Saskatchewan and Alberta, but is rare and unimportant. This wood probably forms ninety per cent of the elm lumber sawn in Canada. Rock elm and red, or slippery, elm are limited to the St. Lawrence Valley and the shores of Lakes Erie and Ontario, and are not abundant even within this range. Rock elm, being the more valuable species, is probably cut in greater quantities than slippery elm, whose wood is inferior.

BEECH.

Commercial species included:

- Beech (*Fagus grandifolia*)—P.E.I., N.S., N.B., Que., Ont.

TABLE 15.

BEECH LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution. 1913.	Total Value. 1913.	Average Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
M Ft. B.M. M Ft. B.M.							
Canada.	386	15,417	12,983	100.0	206,333	15.45	16.00
Ontario.....	192	10,151	8,701	87.0	145,464	16.41	16.75
Nova Scotia.....	58	1,878	1,770	13.6	23,643	11.08	13.30
Quebec.....	101	2,268	1,596	12.3	26,364	15.89	16.52
New Brunswick.....	20	1,011	838	6.5	11,850	12.96	14.14
P. E. Island.....	15	109	78	0.6	1,011	14.94	12.90

There is only one species of beech in Canada and in fact only one in America. The lumber is cut in the eastern provinces only, and is found in Canada in the Maritime Provinces and in the lower parts of the St. Lawrence basin, not occurring west of Sault Ste. Marie.

POPLAR.

Commercial species included:—

Aspen (*Populus tremuloides*)—All provinces.

Balsam poplar (*Populus balsamifera*)—All provinces.

Cottonwood (*Populus deltoides* et al. sp.)—Que., Ont., (Man., Sask., Alta.)

Cottonwood, Black (*Populus trichocarpa*)—B.C.

TABLE 16.

POPLAR LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution. 1913.	Total Value. 1913.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
M Ft. B.M. M Ft. B.M.							
Canada.	336	7,523	11,136	100.0	152,376	13.50	13.68
Ontario.....	126	2,674	3,274	29.4	44,075	12.61	13.46
British Columbia.....	7	646	2,381	21.4	38,069	19.85	15.99
Manitoba.....	28	1,320	2,334	20.9	26,891	12.80	11.52
Quebec.....	135	1,650	2,147	19.3	32,172	12.90	14.98
New Brunswick.....	13	567	654	5.9	6,887	12.43	10.53
Nova Scotia.....	12	171	140	1.2	1,565	11.54	11.18
Alberta.....	7	477	129	1.2	1,689	12.38	13.09
Prince Edward Island.....	5	18	46	0.4	563	21.00	12.24
Saskatchewan.....	3		31	0.3	465		15.00

The poplar species are among the most widely distributed trees in America. Table 16 gives the combined figures for the four commercial species which are described separately in the following three tables. In addition to these four species small quantities of large-toothed aspen and lance-leaved cottonwood may be included, but these are of no commercial importance.

TABLE 16A.

POPLAR (ASPEN) LUMBER, 1913, BY PROVINCES—Quantity Cut, Total Value, Average Value, and Per Cent Distribution.

cts. 45 41 08 89 96 94	\$ cts. 16 65 16 72 13 36 16 52 14 14 12 96	Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution. 1912. 1913. 1913.	Total Value. 1913. 1913.	Average Value Per M Ft. B.M. 1912. 1913.
				M Ft. B.M.	M Ft. B.M.			
Canada.....	265	†	6,358	100.0	\$ 80,448	†	\$ 12.65	
Manitoba.....	18		2,066	32.5	23,681		11.46	
Ontario.....	56		1,714	26.9	20,879		12.18	
Quebec.....	103		1,709	26.9	26,417		15.46	
New Brunswick.....	10		641	10.1	6,731		10.50	
Nova Scotia.....	8		95	1.5	1,038		10.93	
Alberta.....	4		59	0.9	724		12.27	
Prince Edward Island.....	3		43	0.7	513		11.93	
Saskatchewan.....	3		31	0.5	465		15.00	

†Not separated from "Poplar" in 1912.

Aspen poplar is not considered to be the best lumber species among the poplars, but in Canada it is found free of defect in larger quantities than any of the others, and is more frequently cut into lumber. The wood is sawn in every province but British Columbia, where it occurs. It is not utilized on account of the presence of a more valuable species.

TABLE 16B.

COTTONWOOD (POPLAR) LUMBER, 1913, BY PROVINCES—Quantity Cut, Total Value, Average Value, and Per Cent Distribution.

1913.	\$ cts. 13 68	Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution. 1912. 1913. 1913.	Total 1913.	Average Value Per M Ft. B.M. 1912. 1913.
				M Ft. B.M.	M Ft. B.M.			
Canada.....	45	†	3,119	100.0	\$ 47,434	†	\$ 15.21	
British Columbia.....	7		2,381	76.4	38,069		15.99	
Ontario.....	19		500	16.0	5,900		11.80	
Quebec.....	19		238	7.6	3,465		14.56	

†Not separated from "Poplar" in 1912.

Cottonwood in Canada is cut from two species, and is considered to be the most valuable poplar lumber. That produced in British Columbia is all black cottonwood (*Populus trichocarpa*), while that in the eastern provinces is common cottonwood (*Populus deltoides*), which is rare in comparison to the other species.

TABLE 16C.

POPLAR (BALSAM or BALM) LUMBER, 1913, BY PROVINCES—Quantity Cut, Total Value, Average Value, and Per Cent Distribution.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M Ft. B.M.	M Ft. B.M.	\$	\$ cts.	\$ cts.	
Canada.	86	↑	1,659	100.0	24,484	↑	14.76
Ontario.....	51	.....	1,060	63.9	17,296	.....	16.32
Manitoba.....	10	.....	268	16.1	3,210	.....	11.98
Quebec.....	13	.....	200	12.1	2,290	.....	11.45
Alberta.....	3	.....	70	4.2	965	.....	13.79
Nova Scotia.....	4	.....	45	2.7	527	.....	11.71
New Brunswick.....	3	.....	13	0.8	156	.....	12.00
Prince Edward Island.....	2	.....	3	0.2	50	.....	16.66

†Not separated from "Poplar" in 1912.

Balsam poplar is usually considered to produce better lumber than aspen, but as the tree is more liable to fungus injury its lumber is difficult to obtain free of defect and it is consequently not utilized to such an extent as the other poplar species. The tree covers approximately the same range in Canada as aspen poplar.

ASH.

Commercial species included:—

White ash (*Fraxinus americana*)—All provinces east of Manitoba.

Black Ash (*Fraxinus nigra*)—P.E.I., N.S., N.B., Que., Ont., (Man.).

TABLE 17.

ASH LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
		M Ft. B.M.	M Ft. B.M.	\$	\$ cts.	\$ cts.	
Canada.	496	12,386	10,500	100.0	234,303	20.68	22.30
Ontario.....	306	6,542	5,677	54.0	142,698	22.52	25.14
Quebec.....	181	5,602	4,756	45.3	89,603	18.77	18.84
Nova Scotia.....	5	99	42	0.4	1,106	.655	26.33
New Brunswick.....	5	121	32	0.3	866	10.78	27.06
Prince Edward Island.....	1	22	2	•	30	13.64	15.00

*Less than one-tenth of one per cent.

White ash lumber is produced in Canada, south of a line extending from Gaspe, Quebec, to Sault Ste. Marie, Ontario. It is the most valuable of the ash species and forms the greatest part of the production. Black ash lumber is usually considered less valuable than white, except for decorative work. The lumber is cut in Canada from Anticosti Island to Lake Winnipeg. The tree is a swamp species, and does not usually produce lumber of as large dimensions as white ash. Red ash (*Fraxinus pennsylvanica*) is cut only occasionally in southern Ontario. Green ash, a variety of red ash (var. *lanceolata*) is found in southern Ontario and southern Manitoba and Saskatchewan, but is not a lumber-producing tree.

OAK.

Commercial species included:—

White Oak (*Quercus alba*)—Que., Ont.

Red oak (*Quercus rubra*)—P.E.I., N.S., N.B., Que., Ont.

Black oak (*Quercus velutina*)—Ont.

Scrub oak (*Quercus macrocarpa*)—N.B., N.S., Que., Ont., Man.

TABLE 18

OAK LUMBER, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1912.

Province.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1912.	1913.			1912.	1913.
M Ft. B.M. M Ft. B.M.							
Canada	324	7,283	6,348	100.0	207,156	29.82	32.63
Ontario	228	5,575	5,081	80.0	171,334	30.73	33.72
Nova Scotia	26	658	614	9.7	18,938	26.77	30.84
Quebec	62	1,043	611	9.6	15,819	26.98	25.89
Manitoba	5	7	26	0.4	624	21.71	24.00
New Brunswick	2	.....	11	0.2	241	.....	21.91
Prince Edward Island	1	.....	5	0.1	200	.....	40.00

Probably more red oak lumber is produced in Canada in an average year than that of any other oak species. The supply of white oak, the most valuable species, is rapidly disappearing, and is confined to the Upper St. Lawrence Valley and "Old" Ontario. Red oak covers a wider range, including the Maritime Provinces, and usually extends farther north than white oak. Black oak is cut only occasionally in southern Ontario. Scrub oak is the only species of oak in Manitoba. It is sawn into lumber in that province, but is not of great commercial importance. Garry oak (*Quercus Garryana*) is found on the Pacific Coast, but is not a timber tree. Chestnut oak (*Quercus acuminata*) swamp white oak (*Quercus platanoides*) and Scarlet Oak (*Quercus coccinea*) may be occasionally sawn into lumber in southern Ontario, but are too rare to form an important part of the supply.

MINOR SPECIES.

The nine kinds of wood mentioned in Table 19 are cut in small quantities in Canada and vary greatly from year to year both in quantity and value. These woods are cut locally by custom mills and often for special purposes, and their variations have practically no effect on the general production of lumber in the country.

TABLE 19.

LUMBER CUT FROM MINOR SPECIES, 1913—Quantity Cut, Total Value and Average Value.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.	Value.	Average Value.	Cut by Provinces.		
					Ont.	Que.	N.B.
		M Ft. B.M.	\$	\$ cts.	M Ft. B.M.	M Ft. B.M.	M Ft. B.M.
Chestnut.....	36	1,317	25,372	19.26	1,307		
Pickory.....	38	647	23,726	36.67	625		10
Butternut.....	90	513	12,306	23.85	178		22
Cherry.....	89	246	6,171	25.09	176		326
Black Gum.....	1	125	3,000	24.00	125		70
Walnut.....	11	40	2,017	50.42	35		
Tulip.....	3	20	358	17.90	20		
Sycamore.....	2	11	265	23.18	11		
Sassafras.....	1	1	45	45.00	1		

quantities
and value.
poses, and
of lumber

LATH.

Table 20 gives the details of the production of lath in Canada in 1912 and 1913 by provinces.

Value and

TABLE 20.

LATH CUT, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

N.B. M Ft. B.M. 12	Province. Canada	Quantity.		Per Cent Distri- bution.	Total Value.	Average Value Per M	
		1912. M	1913. M			1912. \$ cts.	1913. \$ cts.
		899,016	739,678	100.0	1,783,283	2.30	2.41
Ontario.....	303,058	262,869	35.5	710,808	2.62	2.70	
New Brunswick.....	223,426	198,555	26.8	485,790	2.10	2.45	
British Columbia.....	124,459	108,859	14.7	163,688	1.61	1.50	
Quebec.....	117,102	90,231	12.2	225,277	2.49	2.50	
Nova Scotia.....	82,311	53,448	7.2	128,339	2.21	2.40	
Saskatchewan.....	42,531	31,150	2.9	58,893	2.58	2.78	
Alberta.....	1,801	24,516	0.6	10,400	3.01	2.30	
Manitoba.....	1,418	50		88	1.66	1.76	
Prince Edward Island.....	2,910				2.47		

*Less than one-tenth of one per cent.

The decrease in lath production in Canada from 1912 to 1913 was 17.7 per cent as compared to 6.9 per cent from 1911 to 1912. Laths are usually a by-product to the lumber industry, insomuch that they are almost invariably made from slabs, edgings and other material that would otherwise be burned as waste in the sawmills. Changes from year to year in the production of lath follow those in lumber production very closely.

Saw mills in Ontario are able to employ a closer utilization of their material than those in British Columbia, and consequently produce more lath, although the British Columbia mills produced more lumber in 1913.

Table 21 gives the details of the production of lath in 1912 and 1913 by kinds of wood.

TABLE 21.

LATH CUT, 1912 AND 1913, BY KINDS OF WOOD—QUANTITY CUT AND TOTAL VALUE 1913, AVERAGE VALUE 1912 AND 1913, AND PER CENT DISTRIBUTION 1913.

Kind of Wood.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M.	
	1912.	1913.			1912	1913.
	M	M			\$	\$ cts.
Total	899,616	739,678	100.0	1,783,383	2.30	2.4
Spruce.....	329,429	250,600	35.1	630,045	2.39	2.4
White Pine.....	225,148	222,303	30.1	508,662	2.56	2.6
Cedar.....	173,319	131,977	17.8	299,476	2.18	2.2
Douglas Fir.....	80,458	61,386	8.3	83,524	1.60	1.3
Hemlock.....	33,873	27,366	3.7	70,089	2.41	2.3
Red Pine.....	21,751	27,093	3.7	80,027	2.52	3.1
Balsam Fir.....	23,082	3,606	0.5	8,605	1.59	2.3
Larch.....	1,888	2,398	0.3	4,796	1.15	2.0
Jack Pine.....	6,181	2,340	0.3	4,659	1.61	1.9
Basswood.....	841	816	0.1	1,668	2.48	2.0
Yellow Pine.....	859	693	0.1	1,515	2.23	2.1
Poplar (Aspen).....		60	*	80		1.3
Birch.....	2,061	50	*	137	2.23	2.7
Ash.....	123				2.45	
Elm.....	3				2.00	

*Less than one tenth of one per cent.

The relative importance of the different kinds of wood used in the manufacture of lath is very similar to that of the woods sawn into lumber. Spruce lath are made in greatest quantities in New Brunswick, where spruce is the most important lumber species. Over ninety per cent of the white pine lath are made in Ontario, where white pine is still the most important lumber tree.

Douglas fir lumber and the greatest part of the cedar lumber is sawn in British Columbia, and this province produces the Douglas fir and the greatest part of the cedar lath.

The more important kinds of wood remained at practically the same place on the list as in 1912 and the average price of lath increased only to a slight extent.

SHINGLES.

Table 22 gives the details of the production of shingles in Canada in 1912 and 1913 by provinces.

TABLE 22.

SHINGLE CUT, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution, 1913.

		SHINGLE CUT, 1912 AND 1913, BY PROVINCES—Quantity Cut and Total Value 1913, Average Value 1912 and 1913, and Per Cent Distribution 1913.					
12	1913.						
cts.	\$ ets.		Quantity.	Per Cent Distribution.	Total Value.	Average Value Per M	
30	2 41	Province.					
39	2 43						
56	2 69						
18	2 27						
60	1 36						
41	2 56						
32	3 15						
59	2 39						
15	2 00	Canada.....	M	M	\$	\$ ets.	
61	1 99		1,678,343	1,466,279	100.0	3,064,641	
48	2 04	British Columbia.....	778,045	643,484	43.3	1,204,713	
		Quebec.....	330,874	363,560	24.5	807,035	
		New Brunswick.....	280,081	306,148	20.6	659,381	
23	2 19	Ontario.....	151,092	128,211	8.6	308,277	
	1 33	Nova Scotia.....	22,065	41,327	2.8	81,744	
23	2 74						
45		Manitoba.....	100	2,124	0.1	2,655	
00		Saskatchewan.....		225		506	
		Prince Edward Island.....	13,514	200		330	
		Alberta.....		2,572		3 49	

*Less than one tenth of one per cent.

The decrease in the shingle cut in Canada from 1912 to 1913 was 5.9 per cent as compared to 14.1 per cent from 1911 to 1912. The cut decreased in British Columbia Ontario, Nova Scotia, and Prince Edward Island, increasing in Quebec, New Brunswick and Manitoba. Alberta did not report any production in 1913, but Saskatchewan reported a small quantity.

British Columbia produces more shingles than any other province, and in 1913 all these were made from one species, western red cedar (*Thuja plicata*). In Quebec over ninety seven per cent of the shingles were made of eastern white cedar (*Thuja occidentalis*). Other less important shingle woods in Quebec were spruce, white pine, balsam fir, jack pine, hemlock and aspen poplar, named in their order of importance.

In New Brunswick, cedar formed ninety eight per cent of the total, the remainder being made up of spruce, balsam fir, hemlock, white pine, red pine and aspen poplar.

Ontario manufactures a large proportion of her shingles from white pine, although cedar headed the list in this province in 1913. Shingles were also made in Ontario of hemlock, red pine, spruce, poplar, balsam fir, butternut and jack pine.

In the three Prairie Provinces, as well as in Nova Scotia and Prince Edward Island where cedar is practically unknown, the shingles were made for the most part of spruce, with smaller quantities of balsam fir, and jack pine in the west and cedar, balsam fir, hemlock, white pine, jack pine, aspen, and birch in the two maritime provinces mentioned.

Table 23 gives the details of the production of shingles in Canada in 1912 and 1913 by kinds of wood.

TABLE 23.

**SHINGLE CUT, 1912 AND 1913, BY KINDS OF WOOD—QUANTITY CUT AND
TOTAL VALUE 1913, AVERAGE VALUE 1912 AND 1913, AND PER CENT DISTRIBUTION, 1913.**

Kind of Wood.	Quantity		Per Cent Distribution.	Total Value.	Average Value Per M.	
	1912.	1913.			1912.	1913.
Total.....	1,578,343	1,485,279	100.0	3,064,641	2.01	2.0
Cedar.....	1,442,260	1,392,110	93.7	2,858,456	2.00	2.0
Spruce.....	78,056	34,748	2.3	65,156	1.93	1.9
White Pine.....	39,184	30,363	2.0	78,033	2.72	2.5
Balsam Fir.....	8,039	14,172	1.0	28,577	1.46	2.0
Hemlock.....	8,960	10,079	0.7	24,167	2.22	2.4
Red Pine.....	155	2,365	0.2	7,936	1.75	3.5
Jack Pine.....	1,334	1,218	0.1	1,864	1.52	1.5
Poplar (Aspen).....	276	204	*	383	1.82	1.8
Butternut.....	5	20	*	65	2.20	3.2
Ash.....	56	.....	.....	.....	2.84	.....
Tamarack.....	10	.....	.....	.....	2.00	.....

*Less than one tenth of one per cent.

With cedar forming 93.7 per cent of the total production of shingles in Canada the other woods on the list are of little relative importance. Of the total for cedar, 748,626,000 shingles were made from eastern white cedar, as compared to 643,484,000 of western red cedar from British Columbia.

The other woods on the list were used because they were cheap and abundant in the region where they were manufactured or because they formed a part of the mill waste which could be profitably manufactured into shingles. In very few cases were they chosen on account of any quality they possessed that fitted them for shingle woods. Wherever cedar can be obtained in quantity in Canada it has been, and probably will be, the favorite material for this purpose. The wood splits easily and evenly, has a straight grain, holds nails well and is the most durable of the Canadian woods when exposed to moisture.

Pulpwood Consumption, 1913.

This bulletin is based on reports received from 48 firms operating pulpmills in Canada in 1913. Altogether 64 mills are operated by these firms as follows:—Quebec, 26 firms operating 34 mills; Ontario, 12 firms operating 17 mills; Nova Scotia, 4 firms operating 6 mills; New Brunswick, 4 firms operating 4 mills; and British Columbia, 2 firms operating 3 mills.

In addition to these active firms, reports were received from 10 firms whose mills were idle in 1913, and from 5 firms with mills under construction.

The 48 active firms reporting in 1913 consumed in their mills a total of 1,109,034 cords of pulpwood, valued at the mill at \$7,243,368. A total of 1,035,030 cords of unmanufactured pulpwood, valued at \$7,070,571, was exported from Canada to the United States during the same year, bringing the total production of pulpwood to 2,144,064 cords valued at \$14,313,939.

A list of active Canadian pulp mills and map showing their location will be found in Appendix No. 2 of this bulletin.

PULPWOOD.

Table 1 shows the quantity, total value and average value per cord of the pulpwood used in each of the provinces of Canada in 1912 and 1913, and the number of active firms reporting in each case.

TABLE 1.

PULPWOOD, 1912 AND 1913, BY PROVINCES:—Quantity cut and total value 1913, average value 1912 and 1913, and per cent distribution, 1913.

Provinces.	No. of Active Firms Reporting	Quantity.		Per Cent Distribution. 1913.	Total Value 1913. \$	Average Value per Cord. 1912. \$ c.	
		1912.	1913.			1912.	1913.
		Cords.	Cords.			\$	\$ c.
Canada.....	48	866,042	1,109,034	100.0	7,243,368	6.02	6.53
Quebec.....	26	578,855	629,934	56.8	4,107,689	5.85	6.52
Ontario.....	12	173,903	321,244	29.0	2,297,389	7.10	7.15
British Columbia.....	2	35,067	84,173	7.6	401,218	5.51	4.77
New Brunswick.....	4	52,041	53,121	4.8	342,243	5.52	6.44
Nova Scotia.....	4	26,173	20,562	1.8	94,829	4.32	4.61

The quantity of pulpwood consumed in Canadian pulp-mills in 1913 was an increase of 28.1 per cent over that of 1912. The average price of raw pulpwood at the mill increased by 51 cents a cord, making an increase of 38.9 per cent in the total value of the raw material used in this industry.

Quebec and Ontario still led the other provinces in 1913, as in 1912. British Columbia displaced Nova Scotia from fourth place on the list in 1912 and displaced New Brunswick from third place in 1913. This province now consumes 7.6 per cent of the pulpwood used in Canada, and will probably increase this

proportion in the future, as the pulp industry on the Pacific coast is still in infancy. There was an increase in consumption in every province but Nova Scotia, where the closing of four mills resulted in a decrease of 21.4 per cent. The increases were:—Quebec, 8.8 per cent; Ontario, 84.7 per cent; British Columbia, 140.0 per cent; New Brunswick, 2.1 per cent.

The average cost of pulpwood at the mill in Canada in 1913, was \$0.53, an increase of 8.5 per cent from 1912. The cost increased in Quebec, Ontario, New Brunswick and Nova Scotia and decreased in British Columbia.

Diagram No. 1 presents in graphic form the 1913 pulpwood consumption of the various provinces.

DIAGRAM NO. 1

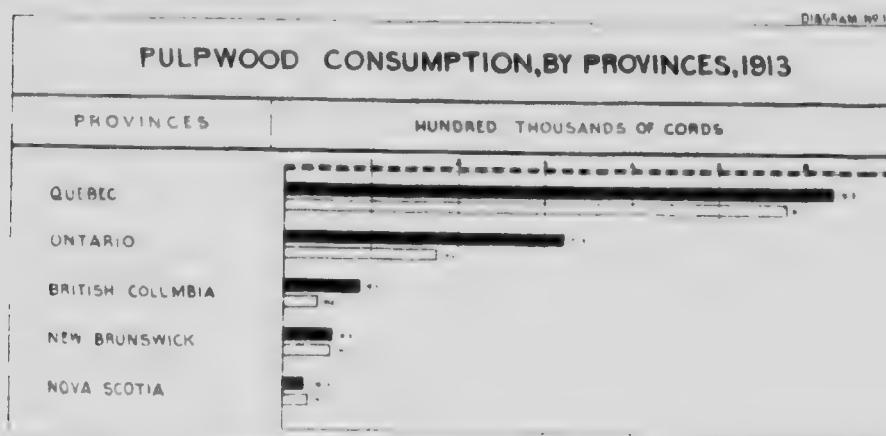


Table 2 shows the quantity, value, and per cent distribution of the kinds of wood used in making pulp in Canada in 1913.

TABLE 2.

PULPWOOD, 1912 AND 1913, BY KINDS OF WOOD: Quantity cut and total value 1913, average value 1912 and 1913, and per cent distribution, 1913.

Kinds of Wood.	Quantity.		Per Cent Distribution.	Total Value.	Average Val per Cord.
	1912. Cords.	1913. Cords.			
Total.....	866,042	1,109,034	100.0	7,243,368	6.02
Spruce.....	677,747	754,858	68.1	5,104,221	6.09
Balsam Fir.....	164,587	283,292	25.5	1,806,911	5.81
Hemlock.....	19,178	47,300	4.3	201,480	5.53
Jack Pine.....	40	19,383	1.7	101,675	4.00
Poplar.....	4,405	4,141	0.4	29,081	6.21
Larch.....	85				4.00

Only five kinds of wood were used in the manufacture of pulp in 1913. Spruce headed the list with over two-thirds of the total. The percentage of balsam fir used in pulp-making has increased steadily as the prejudices against this wood have been overcome. In 1911 balsam fir formed 17.5 per cent of the

s still in its
e but Nova
4 per cent.
ent: British
as \$0.53, an
ee, Ontario,
consumption

DIAGRAM NO. 2

total; in 1912, 19.0 per cent.; and in 1913, 25.5 per cent. The wood has been found to make excellent pulp, equal in many cases to that made from spruce alone, but a prejudice existed against its use. Fir generally gives a 10 per cent lower yield of pulp than spruce, and is therefore not so desirable from the mill operator's standpoint.

Diagram No. 2 presents graphically the quantities of various woods used for pulp in 1913.

PULPWOOD CONSUMPTION, BY SPECIES, 1913



Table 3 shows the extent to which the five different kinds of wood were used in each province in 1913 in the different processes of pulp manufacture.

TABLE 3.

PULPWOOD, 1913, BY PROVINCES, KINDS OF WOOD AND PROCESSES: QUANTITY OF WOOD USED.

the kinds of

and total
on, 1913.verage Value
per Cord.p in 1913.
centage of
ces against
ent of the

Provinces	Total.	Spruce.	Balsam Fir	Hemlock	Jack Pine	Poplar.
-----------	--------	---------	------------	---------	-----------	---------

TOTAL—ALL PROCESSES.

	Cords.	Cords.	Cords.	Cords.	Cords.	Cords.
Canada	1,109,034	754,858	283,292	47,360	19,383	4,141
Quebec	629,034	389,523	222,738	705	13,427	3,641
Ontario	321,244	259,999	54,165	524	6,056	500
British Columbia	84,173	39,742		44,431		
New Brunswick	53,121	48,037	5,084			
Nova Scotia	20,562	17,557	1,305	1,700		

MECHANICAL PROCESS.

	600,216	398,429	182,413	18,894	600
Quebec	198,664	243,480	155,184		
Ontario	135,753	111,413	23,840		
British Columbia	38,535	21,341		17,194	
Nova Scotia	20,562	17,557	1,305	1,700	
New Brunswick	6,702	4,618	2,084		

SULPHITE PROCESS.

Canada	367,105	263,228	74,116	27,761	2,000
Quebec	105,650	62,859	40,791	.....	2,000
Ontario	175,398	144,549	30,325	524	.....
British Columbia	45,638	18,401	.....	27,237	.....
New Brunswick	40,419	37,419	3,000	.....	.....

SULPHATE PROCESS.

Canada	136,569	90,423	26,763	19,383	.....
Quebec	120,476	80,386	26,763	.....	13,327
Ontario	10,093	4,037	.....	.....	6,056
New Brunswick	6,000	6,000	.....	.....	.....

SODA PROCESS.

Canada	5,144	2,798	705	1,641	.....
Quebec	5,144	2,798	705	1,641	.....

The manufacture of ground-wood pulp still consumed over half (54.1 per cent) of the wood used for pulp-making in Canada. This percentage has been decreasing in the last few years. The sulphite process, the most important of the chemical processes, was used in converting a third of the total quantity of wood into pulp in 1913. This proportion is practically the same as in 1912.

The increased manufacture of Kraft papers has caused an increased demand for pulp made by the sulphate process. This process was used with 12.3 per cent of the pulpwood in 1913, as compared to 7.7 per cent in 1912. The manufacture of soda pulp has greatly decreased, only 5,144 cords of wood being used for this process.

Diagram No. 3. shows graphically the relative use of the various process in 1913.

DIAGRAM NO. 3

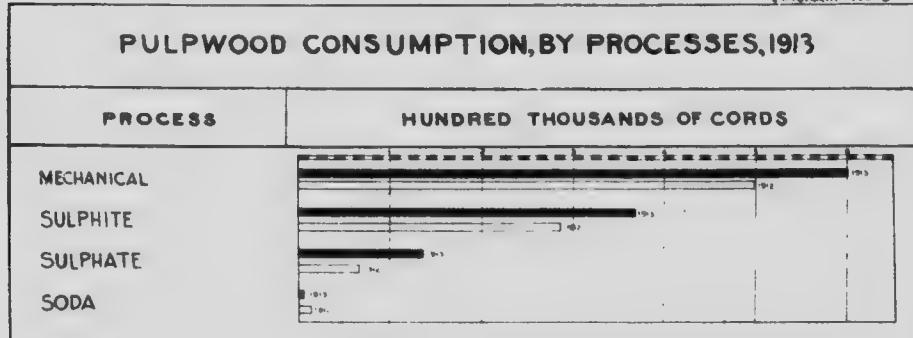


Table 4 gives a summary of the information contained in the first three tables with some additional details.

TABLE 4.

PULPWOOD, 1913, BY PROVINCES, KINDS OF WOOD AND PROCESSES: Number of active firms reporting, quantity of pulpwood used, quantity of pulp produced, quantity of each kind of wood used in each process, total cost and average cost per cord.

	Total.	Quebec.	Ontario.	British Columbia.	New Brunswick.	Nova Scotia.
Number of Active Firms Reporting	48	26	12	2	4	4
Pulp Produced—						
Aggregate..... tons.	854,624	514,299	228,498	61,354	29,911	20,562
Mechanical..... "	600,216	398,664	135,753	38,535	6,702	20,562
Sulphite..... "	183,552	52,825	87,899	22,819	20,209	.....
Sulphate..... "	68,284	60,238	5,046	.....	3,000	.....
Soda..... "	2,572	2,572	.....	.....	.....	.....
Wood Used—						
Aggregate..... Cords	1,109,034	629,934	321,244	84,173	53,121	20,562
Aggregate cost..... \$	\$7,243,368	\$4,107,689	\$2,297,389	\$401,218	\$342,243	\$94,829
Average cost..... \$	6 53 \$	6 52 \$	7 15 \$	4 77 \$	6 44 \$	4 61
Spruce—						
Total..... Cords	754,858	389,523	259,999	39,742	48,037	17,557
Total cost..... \$	\$5,104,221	\$2,623,437	\$1,871,023	\$214,607	\$312,735	\$82,419
Average cost..... \$	6 76 \$	6 73 \$	7 20 \$	5 40 \$	6 51 \$	4 69
Mechanical..... Cords	398,409	243,480	111,413	21,341	4,618	17,557
Sulphite..... "	263,228	62,859	144,549	18,401	37,419	.....
Sulphate..... "	90,423	80,386	4,037	.....	6,000	.....
Soda..... "	2,798	2,798	.....	.....	.....	.....
Balsam Fir—						
Total..... Cords	283,292	222,738	54,165	.....	5,084	1,305
Total cost..... \$	\$1,806,911	\$1,374,315	\$397,478	.....	\$29,508	\$5,610
Average cost..... \$	6 38 \$	6 17 \$	7 34	.....	5 80 \$	4 30
Mechanical..... Cords	182,413	155,184	23,840	.....	2,084	1,305
Sulphite..... "	74,116	40,791	30,325	.....	3,000	.....
Sulphate..... "	26,763	26,763	.....	.....	.....	.....
Hemlock—						
Total..... Cords	47,360	705	524	44,431	.....	1,700
Total cost..... \$	\$201,480	\$3,877	\$4,192	\$186,611	.....	\$6,800
Average cost..... \$	4 25 \$	5 50 \$	8 00 \$	4 20	.....	4 00
Mechanical..... Cords	18,894	.....	.....	17,194	.....	1,700
Sulphite..... "	27,761	.....	524	27,237	.....	.....
Soda..... "	705	705	.....	.....	.....	.....
Jack Pine—						
Total..... Cords	19,383	13,327	6,056	.....	.....	.....
Total cost..... \$	\$101,675	\$80,479	\$21,196	.....	.....	.....
Average cost..... \$	5 25 \$	6 04 \$	3 50	.....	.....	.....
Sulphate..... Cords	19,383	13,327	6,056	.....	.....	.....
Poplar—						
Total..... Cords	4,141	3,641	500	.....	.....	.....
Total cost..... \$	\$29,081	\$25,581	\$3,500	.....	.....	.....
Average cost..... \$	7 02 \$	7 03 \$	7 00	.....	.....	.....
Mechanical..... Cords	500	.....	500	.....	.....	.....
Sulphite..... "	2,000	2,000	.....	.....	.....	.....
Soda..... "	1,641	1,641	.....	.....	.....	.....

The 48 active firms reporting pulp manufacture in 1913 operate altogether 64 different pulp-mills. These firms each used on an average 23,105 cords of wood, as compared to 18,042 in 1912. Each one of the individual 65 mills con-

sumed an average of 17,062 cords of pulpwood. The largest individual mills are situated in British Columbia where the average mill consumption was 28,058 cords. Quebec has the greatest number of mills, and the average consumption of these was 18,527 cords. The average mill consumption in the other provinces was as follows:—Ontario, 18,897 cords; New Brunswick, 13,280 cords; and Nova Scotia, 5,140 cords.

The figures given in Table 4 for pulp produced are estimated from the quantities of pulpwood consumed and the method of manufacture. One cord of wood is assumed to produce one ton of ground-wood pulp or half a ton of chemical fibre, air-dry.*

So many conditions affect the average price of pulpwood that the figures given above cannot be taken too literally. Some mills purchase pulpwood on the open market and pay high prices for it, plus the cost of transportation. Other firms own their limits and pay only the cost of cutting and transporting the material. The prices, however, can be depended upon to indicate any important change from year to year.

TABLE 5.

CANADIAN PULPWOOD EXPORTED UNMANUFACTURED VS. THAT MANUFACTURED IN CANADA, 1912 AND 1913: Quantity, average value per cord and per cent distribution.

	1912.				1913.			
	Quantity.	Value.	Value per Cord.	Per Cent.	Quantity.	Value.	Value per Cord.	Per Cent.
	Cords.	\$	\$ c.		Cords.	\$	\$ c.	
Canada—								
Production.....	1,846,910	11,911,415	6 45	100.0	2,144,064	14,313,939	6 68	100.0
Manufacture.....	866,042	5,215,582	6 02	46.9	1,109,034	7,243,368	6 53	51.7
Export.....	980,868	6,695,833	6 82	53.1	1,035,030	7,070,571	6 83	48.3
Quebec—								
Production.....	1,330,670	8,371,923	6 29	100.0	1,432,594	9,495,165	6 63	100.0
Manufacture.....	578,855	3,386,705	5 85	43.5	629,934	4,107,689	6 52	44.0
Export.....	751,855	4,985,218	6 63	56.5	802,260	5,387,476	6 71	56.0
Ontario—								
Production.....	246,282	1,692,662	6 87	100.0	405,943	2,822,859	6 95	100.0
Manufacture.....	173,903	1,235,343	7 10	70.6	321,244	2,297,389	7 15	79.1
Export.....	72,379	457,319	6 32	29.4	84,699	525,470	6 20	20.9
New Brunswick—								
Production.....	202,942	1,492,567	7 35	100.0	194,674	1,449,525	7 45	100.0
Manufacture.....	52,041	287,060	5 52	25.7	53,121	342,243	6 44	27.3
Export.....	150,901	1,205,507	7 99	74.3	141,553	1,107,282	7 82	72.7
British Columbia—								
Production.....	35,067	193,265	5 51	100.0	84,242	402,428	4 78	100.0
Manufacture.....	35,067	193,265	5 51	100.0	84,173	401,218	4 77	99.9
Export.....					69	1,210	17 54	0.1
Nova Scotia—								
Production.....	31,949	160,998	5 04	100.0	26,611	143,962	5 41	100.0
Manufacture.....	26,176	113,209	4 32	81.9	20,562	94,829	4 61	77.3
Export.....	5,773	47,789	6 28	18.1	6,049	49,133	8 12	22.7

*Air-dry pulp is assumed to contain 10 per cent of moisture and 90 per cent "bone-dry" fibre.

Table 5 shows the extent to which Canada exports raw or unmanufactured pulpwood. The figures are based on information received from the Department of Customs for the calendar years 1911 and 1912.

In 1912 Canada manufactured 46.9 per cent of her pulpwood in her own mills. In 1913 this percentage increased to 51.7 per cent, and for the first time in the history of the industry more than half of the pulpwood produced in Canada was manufactured into pulp in Canadian pulp-mills.

During 1913 each province, except Nova Scotia, used an increased proportion of its pulpwood for home manufacture. The greatly increased production of pulpwood in British Columbia, together with the fact that this province manufactures practically all (99.9 per cent) of its pulpwood at home, is largely responsible for the increased proportion for the whole of Canada.

Laws exist in Ontario whose strict enforcement has checked the export of raw pulpwood. In this province 79.1 per cent of the pulpwood is used at home for manufacture. The exports of raw pulpwood have increased in Nova Scotia from 0.3 per cent in 1911 to 22.7 per cent in 1913. Laws prohibiting the export of raw pulpwood from Crown lands in Quebec came into force on September 1, 1910. Since that time the export for the province has decreased steadily from 69.4 per cent in 1910 to 62.0 per cent in 1911, 56.5 per cent in 1912, and 56.0 per cent in 1913. This proportion probably represents approximately the proportion of pulpwood cut on Crown lands and privately owned limits, and may remain stable for some time. In New Brunswick the restrictive legislation of October 1, 1911, checked the export of raw material, and in 1913 a slight increase in the proportion of pulpwood consumed in the province is to be noted. This province still exports a greater proportion of its pulpwood in the raw state than any other.

Canada exported in 1913 to the United States 1,035,030 cords of unmanufactured pulpwood valued at \$7,070,571, or at \$6.83 a cord. Canadian pulp manufacturers operated 65 mills in that year. If the exported material had been manufactured into pulp in Canada it would have been sufficient to supply 60 mills each consuming 17,062 cords of pulpwood, the average consumption of Canada's 65 mills in 1913.

Canadian pulp-mill operators paid an average price of \$6.53 per cord for their raw material. The exporters received only 20 cents a cord more than this for the wood sent to the United States.

This 1,035,030 cords of pulpwood if manufactured into pulp, would have made 1,035,030 tons of ground-wood, or 517,515 tons of chemical fibre. Ground-wood pulp is worth at least \$14 a ton, which would give \$14,490,420 as the value of the pulp made from the wood exported in 1913. Had this wood been made into chemical fibre at an average price of \$38 a ton, its value would have been \$19,665,570. In reality only \$7,070,571 was received for this wood. The pulp industry lost the profit which could have been made by manufacturing this wood into pulp, and the country at large lost the money which would have represented the cost of manufacture in the form of wages, etc.

WOOD-PULP.

Table 6 shows the details of the export of manufactured wood-pulp from Canada in 1912 and 1913. The figures were furnished by the Customs Department.

TABLE 6.

EXPORT OF WOOD-PULP, 1912 and 1913: Quantity, total value, average value per ton, per cent distribution and countries to which exported.

Kinds of Pulp and Countries to which Exported.	1912.				1913.			
	Quantity.	Value.	Average Value per Ton.	Per Cent.	Quantity.	Value.	Average Value per Ton.	Per Cent.
	Tons.	\$	\$ c.		Tons.	\$	\$ c.	
Wood-pulp exported, aggregate.....	384,100	5,952,361	17 10	100.0	298,160	5,913,560	19 83	100.0
Total Mechanical Pulp.....	295,449	3,991,365	13 51	84.9	230,644	3,317,565	14 38	77.4
Total Chemical Pulp.....	52,651	1,960,996	37 24	15.1	67,525	2,595,995	38 44	22.6
Total to United States.....	218,936	4,525,569	20 67	62.9	198,110	4,471,939	22 57	66.4
Mechanical.....	167,448	2,607,589	15 57		137,922	2,150,227	15 59	
Chemical	51,488	1,917,980	37 25		60,188	2,321,712	38 57	
Total to Great Britain.....	127,981	384,8 3	10 82	36.8	92,916	1,172,750	12 62	31.2
Mechanical.....	127,945	1,382 6	10 81		92,722	1,167,338	12 59	
Chemical.....	36	1.87	51 86		194	5,412	27 90	
Total to Japan	1,046	36,665	35 05	0.3	7,031	265,071	37 70	2.4
Mechanical.....	56	750	13 39					
Chemical.....	990	35,915	36 28		7,031	265,071	37 70	
Total to China.....	116	4,294	37 02	*	112	3,800	33 93	*
Chemical.....	116	4,294	37 02	*	112	3,800	33 93	
Total to New Zealand.....	21	940	44 76	*				
Chemical.....	21	940	44 76	*				

*Less than one tenth of one per cent.

The export of wood-pulp from Canada decreased from 1912 to 1913 by 22.4 per cent, in spite of an increase of 25.2 per cent in the quantity manufactured. This would seem to indicate increased activity in the domestic manufacture of paper. Decreases are to be noted in the exports of pulp to the United States, Great Britain and China. New Zealand did not import Canadian pulp in 1913. The only increase reported was in the export of chemical pulp to Japan. The United States still takes about two-thirds of Canada's output of pulp, of which about 70 per cent is ground-wood. Great Britain takes a little less than one-third of the total, and her imports are almost entirely ground-wood or mechanical pulp. The exports to Japan and China in 1913 were of chemical fibre only. Altogether 77.4 per cent of the pulp exported was ground-wood, and the remaining 22.6 per cent chemical fibre.

The average price of ground-wood pulp increased by 87 cents and that of chemical fibre by \$1.20, from 1912 to 1913. The price of mechanical pulp exported to the United States increased by only 2 cents a ton, while the increase in price of that sent to Great Britain was \$1.78. The price of chemical fibre exported to the United States increased by \$1.32, and of all fibre to Japan by \$2.65. The chemical pulp exported to Great Britain was valued at a little more than half the value in the previous year. A reduction in price of \$3.09 was also reported for the pulp exported to China.

Table 7 gives the details of the imports of wood-pulp into Canada from various countries. The figures were supplied by the Customs Department.

TABLE 7.

IMPORTS OF WOOD-PULP, 1912 and 1913: Total value, per cent distribution and countries from which imported.

Countries from which imported.	1912.		1913.	
	Value.	Per Cent.	Value.	Per Cent.
Total Value of Imports.....	\$ 172,797	100.0	\$ 356,862	100.0
United States.....	100,234	58.0	302,543	85.1
Sweden.....	64,419	37.3	36,843	10.3
Great Britain.....	4,764	2.7	10,197	2.8
Germany.....	2,546	1.5	3,886	1.1
Norway.....			1,387	0.4
Switzerland.....			1,006	0.3
Austria-Hungary.....	\$34	0.5		

The imports of wood-pulp into Canada in 1913 were valued at \$356,862, as compared to \$172,797 for 1912. This is an increase of over 100 per cent, the imports from the United States having more than tripled during 1913. The importations from Great Britain more than doubled, and those from Germany increased by over half those in 1912. The importations of wood-pulp from Sweden decreased by 42.8 per cent. Pulp was imported from Norway and Switzerland in 1913, but not in the previous year. No pulp was imported from Austria Hungary in 1913. The United States in 1913 supplied over four-fifths of the total (85.1 per cent), as compared to a little over a half (58.0 p.c.) in 1912.

POLES PURCHASED IN 1913.

Reports received from 424 pole purchasers in Canada in 1913 were used as a basis for the statistics in this bulletin. These pole purchasers consisted of 218 telephone companies, 155 electric light and power concerns, 29 electric railways, 18 steam railways and 4 telegraph companies.

The statistics have been divided into two main groups: first, those received from steam-railway, telegraph and telephone companies, and second, those received from electric railway, power and light concerns.

Table 1 gives the details of the poles purchased in Canada in 1913 by kinds of wood divided into these two main classes.

TABLE 1.

POLES PURCHASED, 1912 AND 1913, BY KINDS OF WOOD AND CHIEF USES Number, Total Value, Average Value and Percent Distribution.

Kind of Wood.	1912				1913			
	Number.	Value.	Avg. Value	Per Cent.	Number.	Value.	Avg. Value	Per Cent.
TOTAL OF ALL USES.								
Total		\$	\$ et			\$	\$ c.	
White Cedar	988,556	1,112,521	1 83	100.0	534,592	1,188,331	2 22	100.0
Red Cedar	378,369	613,580	2 83	62.2	264,267	525,853	1 99	49.4
Tamarack	144,222	408,472	2 83	2 37	145,569	488,138	3 35	27.2
Spruce	36,158	46,822	1 29	5.9	115,517	155,682	1 35	21.6
Jack Pine	9,127	10,334	1 13	1.5	5,228	6,046	1 16	1.0
Balsam Fir	1,790	2,710	1 51	0.3	1,450	1,299	0 90	0.3
White Pine	38,000	30,400	0 80	6.2	1,437	1,841	1 28	0.3
Chestnut	228	147	0 64	*	682	8,095	11 37	0.1
Cypress	50	65	1 30	*	167	94	0 56	*
Hemlock					128	1,056	8 25	*
Western Larch					92	32	0 35	*
Ash					39	163	4 18	*
Douglas Fir	612	994	1 62	0.1	16	32	2 00	*

STEAM RAILWAYS AND TELEPHONE AND TELEGRAPH COMPANIES.

Total	549,560	830,793	1 51	100.0	469,521	833,259	1 77	100.0
White Cedar	341,240	462,964	1 36	62.1	230,360	382,657	1 66	49.1
Red Cedar	122,925	278,846	2 27	22.4	115,714	282,389	2 44	24.6
Tamarack	36,158	46,822	1 29	6.6	115,212	132,675	1 33	24.5
Spruce	8,587	7,869	0 92	1.6	4,393	4,150	0 94	0.9
Jack Pine	1,790	2,710	1 51	0.3	1,450	1,299	0 90	0.3
Balsam Fir	38,000	30,400	0 80	6.9	1,437	1,841	1 28	0.3
White Pine	228	147	0 64	*	682	8,095	11 87	0.1
Chestnut	40	40	1 00	*	167	94	0 56	*
Ash					90	27	0 30	*
Douglas Fir	612	* 995	1 63	*	16	32	2 00	*

* Less than one-tenth of one per cent.

TABLE 1—Continued.

POLES PURCHASED, 1912 AND 1913, BY KINDS OF WOOD AND CHIEF USES—
Number, Total Value, Average Value and Percent Distribution.

ELECTRIC RAILWAY, POWER AND LIGHT COMPANIES

Total	58,996	282,731	4.79	100.0	15,071	355,072	5.45	100.0
White Cedar	37,129	150,615	4.06	62.9	33,907	143,196	4.22	52.1
Red Cedar	21,297	129,626	6.09	36.1	29,855	205,749	6.89	45.9
Spruce	580	2,463	4.40	0.9	835	1,896	2.27	1.1
Tamarack					305	3,007	9.89	0.1
Cypress					128	1,056	8.25	0.1
Western Larch	10	25	2.50	*	39	163	4.18	*
Hemlock					2	5	2.50	*

* Less than one-tenth of one per cent.

The consumption of wooden poles in Canada varies greatly from year to year. There was a decrease of about 30 per cent in the numbers purchased from 1910 to 1911, an increase of 3.9 per cent from 1911 to 1912, and a decrease of 12.2 per cent from 1912 to 1913.

Eastern white cedar (*Thuja occidentalis*) still heads the list, as it always has done in the past. The supply of good eastern white cedar poles, however, is visibly decreasing, as is demonstrated by the fact that at least 20 per cent of the poles purchased in 1913 were imported from the United States. The western species of red cedar (*Thuja plicata*) is more abundant and is now taking the place of the eastern species, especially in the greater length-classes. Poles of this wood are used extensively in the western provinces and more particularly in British Columbia, where this tree grows. In the Prairie provinces the poles are about half of the eastern species and half of the western. Of the red cedar poles purchased in 1913, over 8 per cent were imported from the Pacific States, and were classed as "Idaho red cedar," although these are of the same species as those obtained from British Columbia.

Out of a total of 534,592 poles, 12.1 per cent were reported as having been imported from the United States in 1913.

While the total number was a decrease from 1912 to 1913, the total value showed an increase of 6.7 per cent, caused by an increase in the average price amounting to \$0.39.

Telephone and telegraph companies and railway companies operating telephone and telegraph lines used 87.8 per cent of all the poles purchased in Canada in 1913. This is a decrease in numbers of 14.6 per cent, and an increase in value of 0.3 per cent, the average value to these companies increasing by \$0.26.

All the jack pine, balsam fir, white pine, chestnut and ash poles were purchased by companies of this class.

The electric railway, power and light companies' purchases formed only 12.2 per cent of the total, but these poles cost on an average \$3.68 more than those purchased by the telephone and telegraph companies.

The total number was an increase of 10.3 per cent over 1912; while the average price was an increase of \$0.66. These companies imported over 5 per cent of the poles they used in 1913. They purchased all the cypress poles imported into Canada during that year and also all the western larch poles from British Columbia.

The average prices given for certain kinds of poles which have been purchased in small quantities cannot be considered as indicative of the intrinsic value of that particular wood for pole purposes, or even as a fair gauge of its market value, as these individual prices are affected by so many outside conditions, such as cost of transportation, size, etc.

Table 2 gives the details with regard to the poles purchased in Canada in 1913, by kinds of wood, and divided into five length-classes.

TABLE 2.

POLES PURCHASED, 1912 AND 1913, BY LENGTH-CLASSES AND KINDS OF WOOD—
Total Value, Average Value and Percent Distribution.

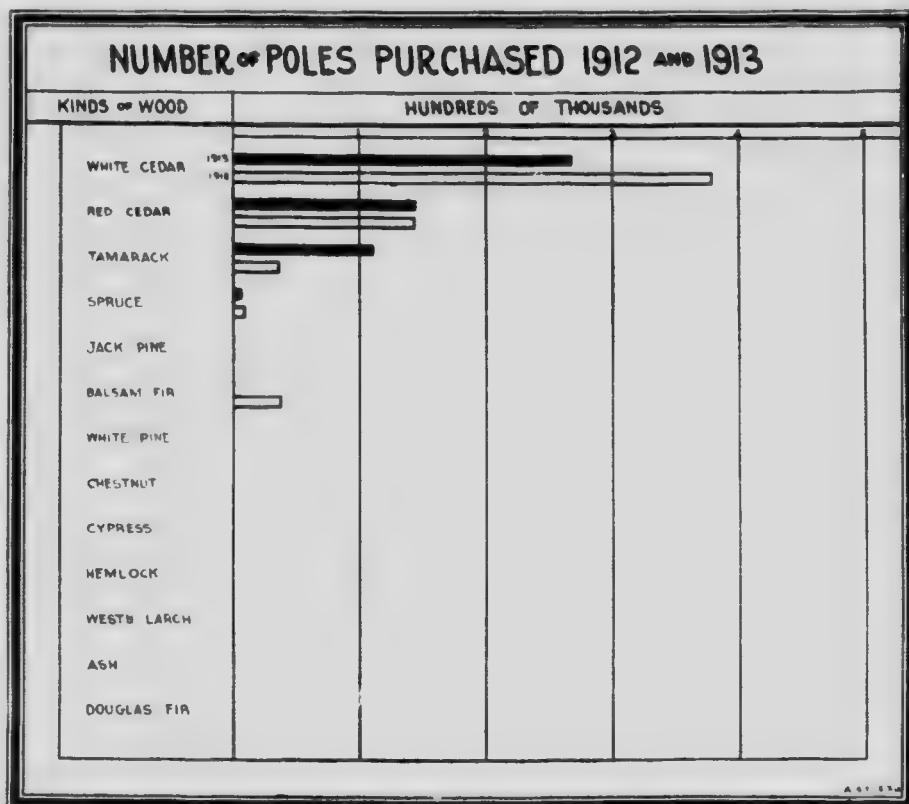
Kind of Wood.	Number.	Value.	Avg. Value.	Per Cent.	Number.	Value.	Avg. Value.	Per Cent.
	\$	\$	c	%	\$	\$	c	%
Total—All Length-classes.								
Total	534,592	1,188,331	2 23	100.0	310,865	462,665	1 36	100.0
White Cedar	264,267	525,833	1 99	49	159,064	192,908	1 21	46.7
Red Cedar	145,569	488,138	3 35	27.2	60,028	112,821	1 88	17.6
Tamarack	115,517	155,682	1 35	21.6	114,564	151,386	1 32	33.6
Spruce	5,228	8,046	1 16	1.0	4,357	3,972	0 41	1.3
Jack Pine	1,450	1,299	0 90	0.3	1,375	1,125	0 82	0.4
Balsam Fir	1,437	1,841	1 28	0.3	1,202	1,209	1 08	0.4
White Pine	682	8,095	11 87	0.1	2	1	0 50	*
Chestnut	167	94	0 56	*	167	94	0 56	*
Cypress	128	1,056	8 25	*	90	27	0 30	*
Hemlock	92	32	0 35	*	16	32	2 00	*
Western Larch	39	163	4 18	*				
Ash	16	32	2 00	*				
20 to 25 feet (63.8 per cent.)								
Total	116,297	294,162	2 53	100.0	38,165	148,639	3 89	100.0
White Cedar	70,144	165,379	2 36	60.3	21,356	75,835	3 55	56.0
Red Cedar	44,942	126,292	2 81	38.6	16,073	70,979	4 42	42.1
Tamarack	662	1,150	1 74	0.6	75	179	2 39	0.2
Spruce	347	892	2 61	0.3	480	972	2 03	1.3
Balsam Fir	150	333	2 22	0.1	75	179	2 39	0.2
Jack Pine	50	111	2 22	*	20	48	2 40	*
Cypress	2	5	2 50	*	75	402	5 36	0.2
Hemlock					12	45	3 75	*
Western Larch								
26 to 30 feet (21.8 per cent.)								
Total	116,297	294,162	2 53	100.0	38,165	148,639	3 89	100.0
White Cedar	70,144	165,379	2 36	60.3	21,356	75,835	3 55	56.0
Red Cedar	44,942	126,292	2 81	38.6	16,073	70,979	4 42	42.1
Tamarack	662	1,150	1 74	0.6	75	179	2 39	0.2
Spruce	347	892	2 61	0.3	480	972	2 03	1.3
Balsam Fir	150	333	2 22	0.1	75	179	2 39	0.2
Jack Pine	50	111	2 22	*	20	48	2 40	*
Cypress	2	5	2 50	*	75	402	5 36	0.2
Hemlock					12	45	3 75	*
Western Larch								
31 to 35 feet (7.1 per cent.)								
Total	116,297	294,162	2 53	100.0	38,165	148,639	3 89	100.0
White Cedar	70,144	165,379	2 36	60.3	21,356	75,835	3 55	56.0
Red Cedar	44,942	126,292	2 81	38.6	16,073	70,979	4 42	42.1
Tamarack	662	1,150	1 74	0.6	75	179	2 39	0.2
Spruce	347	892	2 61	0.3	480	972	2 03	1.3
Balsam Fir	150	333	2 22	0.1	75	179	2 39	0.2
Jack Pine	50	111	2 22	*	20	48	2 40	*
Cypress	2	5	2 50	*	75	402	5 36	0.2
Hemlock					12	45	3 75	*
Western Larch								
36 to 40 feet (4.4 per cent.)								
Total	23,839	141,431	5 91	100.0	15,325	140,434	3 16	100.0
White Cedar	9,443	51,214	5 42	39.4	4,260	40,517	9 51	27.8
Red Cedar	14,371	89,603	5 91	60.0	1,055	88,443	8 71	66.3
Tamarack	10	30	3 00	*	206	2,937	14 26	1.3
Spruce	43	205	4 77	0.2	1	5	5 00	*
Balsam Fir	10	30	3 00	*				
Jack Pine	5	15	3 00	*				
White Pine	42	274	6 52	0.2	638	7,820	12 26	4.2
Cypress					53	654	12 34	0.3
Western Larch	15	60	4 00	0.1	12	58	4 83	0.1
40 feet and over (2.9 per cent.)								

*Less than one-tenth of one per cent.

The greater part of the poles purchased in 1913 were less than 25 feet in length, and of this class the two cedar species and eastern tamarack together formed over 97 per cent. All the chestnut and ash poles were of this length, and the eastern tamarack poles were more numerous in this class than those of western red cedar, which is only true for this length-class.

In the 26-to-30-foot class the two cedars formed together 98.9 per cent, and tamarack poles became of little relative importance. While the cedar species still formed by far the greater part of the poles in the 31-to-35-foot class, poles of spruce become more important, and cypress poles appeared for the first time. White pine and western larch poles appeared in the 36-to-40-foot class, and here red cedar became more important than white, which is not the case with the shorter classes of poles. In the class of poles over 40 feet in length, red cedar formed over two-thirds of the total.

The diagram below shows, in graphic form, the number of poles of different kinds of wood used in 1912 and 1913:—



CROSS-TIES PURCHASED IN 1913.

This bulletin is based on reports received from 47 steam railways and 32 electric railways purchasing ties in 1913. The total number of ties purchased was 19,881,714, valued at \$8,740,849, and of this total, 3,254,587 ties valued at \$1,827,358, were reported as having been purchased in the United States. This brings out the fact that Canadian railway companies import 16.4 per cent of their tie material and pay on an average 13 cents a tie more for this than for the native article.

Table 3 gives the details of the ties purchased in Canada in 1912 and 1913, by kinds of wood.

TABLE 3.

CROSS-TIES PURCHASED, 1912 AND 1913, BY KINDS OF WOOD—Number, Value, Average Value and Percent Distribution.

Kind of Wood.	1912.				1913.			
	Number.	Value.	Avg. Value.	Per Cent.	Number.	Value.	Avg. Value.	Per Cent.
Total	31,308,571	\$373,869	0 44	100.0	19,881,714	\$8,740,849	0 43	100.0
Jack Pine	7,783,034	3,417,238	0 44	36.5	7,773,674	3,103,140	0 40	39.1
White Cedar	3,332,105	1,486,456	0 45	15.6	2,451,527	1,090,436	0 44	12.3
Douglas Fir	2,183,554	661,891	0 30	10.2	2,427,100	801,710	0 33	12.2
Western Larch	1,196,184	514,359	0 43	5.6	1,225,956	636,631	0 52	6.2
Hemlock	1,947,474	743,535	0 38	9.1	1,199,699	455,662	0 38	6.0
Hard Pine	658,096	434,840	0 66	3.1	1,138,351	621,932	0 55	5.7
Oak	933,486	624,174	0 67	4.1	978,554	673,244	0 69	4.9
Tamarack	1,803,696	806,049	0 45	8.5	868,231	369,666	0 43	4.4
Western Hemlock					479,113	148,725	0 31	2.4
Spruce	835,121	330,854	0 40	3.9	458,256	151,049	0 33	2.3
Western Spruce	8,000	4,640	0 58	*	267,917	70,685	0 54	1.3
Chestnut	266,082	157,225	0 59	1.2	232,179	126,795	0 55	1.2
Red Cedar	82,357	29,109	0 35	0.4	115,578	77,328	0 67	0.6
Red Pine	26,646	12,673	0 48	0.1	114,852	52,112	0 45	0.6
Beech	103,583	70,220	0 68	0.5	96,923	60,552	0 62	0.5
Birch	37,943	22,605	0 60	0.2	24,736	10,447	0 42	0.1
Maple	51,465	39,681	0 77	0.2	16,860	14,381	0 85	0.1
Elm	2,888	1,361	0 47	*	13,674	6,421	0 47	0.1
Ash					503	216	0 43	*
Cherry					31	17	0 55	*
White Pine	44,408	15,348	0 35	0.2				
Balsam Fir	12,469	1,621	0 13	0.1				

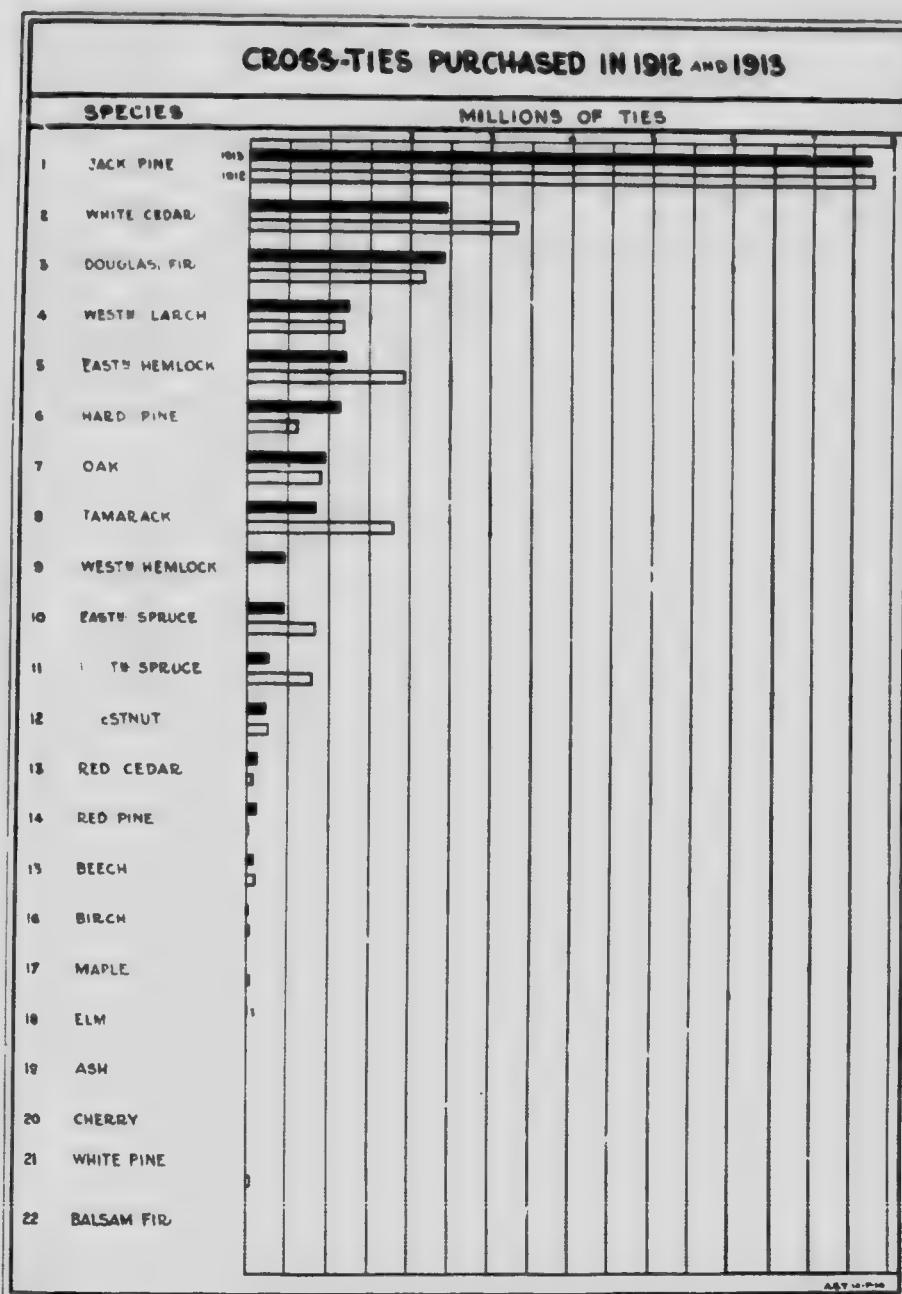
*Less than one-tenth of one per cent.

The decrease in the number of ties purchased in 1913 was 6.7 per cent of the total for 1912. Out of twenty kinds of wood reported, the two most important—jack pine and white cedar—were reported in smaller quantities than in 1912, as were several of the other kinds of wood.

CROSS-TIES PURCHASED, 1913.

53

The diagram below shows, in graphic form, the total number of cross-ties of different species purchased in 1912 and 1913:—



The use of Douglas fir increased, and ties of that wood formed 12.2 per cent of the total as compared to 10.2 per cent in 1912. The use of this wood has steadily increased since 1908. Four other British Columbia species, namely Western larch, spruce, hemlock and red cedar, all showed increases from 1912 to 1913. The eastern species of these woods all showed decreases during the same year. Oak ties, of which the greater part are imported, were purchased in increased numbers, but all the other hardwoods with the exception of elm, showed decreases.

The average price of ties of all classes was practically the same in 1913 as in the preceding year. The two most important woods showed a slightly lower price than in 1912, and of the others, seven showed increases and eight decreases.

Table 4 shows the details with regard to the ties purchased by the 47 steam railways in 1912 and 1913, by kinds of wood.

TABLE 4.

CROSS-TIES PURCHASED, 1912 AND 1913, BY STEAM RAILWAYS, BY KINDS OF WOOD—Number, Value, Average Value and Percent Distribution.

Kind of Wood.	1912				1913.			
	Number.	Value.	Avg. Value	Per cent.	Number.	Value.	Avg. Value	Per cent.
Total	20,825,200	\$ 1,813,623	\$ 84	100.0	19,490,491	\$ 1,235,100	\$ 62	100.0
Jack Pine	7,757,418	3,402,417	0.44	37.3	7,706,720	3,070,003	0.40	39.5
Douglas Fir	2,026,624	593,859	0.29	19.7	2,421,118	799,271	0.33	12.4
White Cedar	3,172,629	1,398,774	0.44	15.2	2,305,868	1,013,731	0.44	11.8
Western Larch	1,196,184	514,359	0.43	5.7	1,223,444	634,742	0.52	6.3
Hemlock	1,894,711	720,109	0.38	9.1	1,180,131	448,235	0.38	6.1
Hard Pine	653,896	431,900	0.66	3.1	1,136,356	619,924	0.55	5.8
Oak	930,561	621,783	0.67	4.5	963,794	660,200	0.69	4.9
Tamarack	1,772,151	786,853	0.44	8.5	838,999	355,858	0.42	4.3
Western Hemlock					479,113	148,725	0.31	2.5
Spruce	818,485	325,202	0.40	3.9	450,256	148,249	0.33	2.3
Western Spruce					267,917	70,688	0.26	1.4
Chestnut	266,062	187,225	0.39	1.3	232,179	126,795	0.55	1.2
Red Pine	26,646	12,673	0.48	0.1	114,852	52,112	0.45	0.6
Beech	103,583	70,220	0.68	0.5	96,771	60,400	0.62	0.5
Birch	37,943	22,605	0.60	0.2	24,736	10,447	0.42	0.1
Red Cedar	57,357	16,234	0.28	0.3	20,578	6,761	0.33	0.1
Maple	51,465	39,641	0.77	0.2	16,799	14,320	0.85	0.1
Elm	2,778	1,195	0.43	*	10,326	4,440	0.85	*
Ash					503	216	0.43	*
Cherry					31	17	0.55	*
White Pine	44,227	14,965	0.34	0.2				
Balsam Fir	12,469	1,621	0.13	0.1				

* Less than one-tenth of one per cent.

A total of 19,490,491 ties, or 98.0 per cent of all those purchased in Canada, were used by the steam railways. This total is a decrease of 6.4 per cent from the total for 1912.

The ties imported for use by this class of companies amounted to 3,235,022, valued at \$1,813,256, and formed 16.6 per cent of the total.

The jack pine ties included in this table were made up of two separate species, eastern jack pine (*Pinus Banksiana*), which is cut in every province east of British Columbia, and lodgepole pine (*Pinus Murraya*), which is cut only in British Columbia and western Alberta. Although this is one of the most widely distributed and abundant trees in Canada, the steam railways reported the purchase of 161,023 imported jack pine ties coming from the United States.

This wood is used for ties chiefly because of its cheapness and abundance and the fact that it is fairly strong. Untreated jack pine ties decay very rapidly in the road-bed, and the practice of treating them to prevent decay is becoming more prevalent each year. In 1913, 709,227 jack pine ties received preservative treatment before being laid in the road-beds of the steam roads of Canada.

Douglas fir ties are fairly durable, and no treated material of this kind was reported in 1913. A small percentage (5.8 per cent) of the Douglas fir ties were imported from the Pacific States.

White cedar (*Thuja occidentalis*) is one of the most durable woods in Canada and has always been a favourite tie material, although its softness makes frequent renewals necessary where the traffic is heavy. Most of the cedar ties used wear out before they decay, and therefore preservative treatment is not necessary under existing conditions. White cedar ties are obtained in Ontario, Quebec and New Brunswick, and 6.6 per cent of those purchased came from the Lake States.

Western larch or tamarack (*Larix occidentalis*) is a hard, strong wood, but one which is not so durable that preservative treatment does not effect a saving in its use. The wood is cut in British Columbia, and 4.7 per cent of the ties used in Canada in 1913 were imported from Washington and Oregon. Altogether only 3.4 per cent of the larch ties were treated.

Eastern hemlock (*Tsuga canadensis*) is cut only in the provinces east of Manitoba, and is not considered a first-class tie material. All the ties of this wood were purchased in Canada, and none were given any preservative treatment.

Oak ties were the most expensive on the list among the more important woods and were used for switch ties and on lines where the traffic was exceptionally heavy. By far the greatest number of the oak ties were imported (96.8 per cent coming from the United States) and were made up of a large number of commercial species. The fact that it pays to apply preservative treatment to a hard, strong, and even durable wood like oak, is demonstrated by the fact that the steam railways in Canada in 1913 purchased 525,623 treated oak ties, this number forming over half (54.3 per cent) of the total.

Hard pine from the Southern Atlantic and Gulf States forms an increasing proportion of the tie material imported into Canada each year. This wood does not grow in Canada, and is the product of at least four different species of pine, the most valuable of which is longleaf pine (*Pinus palustris*). The wood of the hard pines, when used for ties, usually decays before it fails through mechanical wear, and therefore it repays the cost of a preservative treatment that will postpone this decay. Of the hard pine ties used in Canada by the steam railways in 1913, 17.5 per cent were treated.

Western spruce is made up of two species, which are confined for the most part to the province of British Columbia. Engelmann spruce (*Picea Engelmanni*) is found on the Rocky Mountains and in the eastern part of British Columbia and Sitka spruce (*Picea sitchensis*) is cut on the coast. All the western spruce ties were native material, and on account of their rapid rate of decay in the ground, 34 per cent of those purchased were given preservative treatment.

Eastern tamarack (*Larix laricina*) is very similar to the western species, and has always been a favorite tie material on account of its spike-holding qualities. About half the tamarack ties were imported and none were reported to have been treated.

Western hemlock (*Tsuga heterophylla*) is usually considered to be a much better tie material than the eastern species, but in British Columbia, where this tree grows, it has so many rivals among the good tie timbers that it is not used to a very great extent at the present time. All the Western hemlock ties were purchased in British Columbia, and none were given preservative treatment.

Eastern spruce in Canada is made up of three different species that grow east of the Rocky Mountains. All the spruce ties were of native material and none were treated.

Chestnut (*Castanea dentata*) is one of the most durable woods of America, although the wood is not to be classed among the hard, heavy tie materials. Practically all the chestnut ties were imported from the eastern States, and none were treated.

Of the other hardwoods purchased, such as beech, birch and maple, the greater part of the ties were treated before being laid.

Altogether about 12 per cent of the ties purchased by the steam railways in 1913 received some sort of treatment to prevent decay.

Table 5 gives the details of the ties purchased by the 32 electric railways in Canada in 1912 and 1913, by kinds of wood.

TABLE 5.

CROSS-TIES PURCHASED, 1912 AND 1913, BY ELECTRIC RAILWAYS, BY KINDS OF WOOD—Number, Total Value, Average Value and Percent Distribution.

Kind of Wood.	1912.					1913.				
	Number.	Value.	Av. Value	Per cent.		Number.	Value.	Av. Value	Per cent.	
Total.	463,362	\$ 242,195	\$ cts. 0 58	100.0		391,223	\$ 225,066	\$ cts. 0 58	100.0	
White Cedar.....	159,476	87,681	0 55	33.0		145,659	76,673	0 63	37.2	
Red Cedar.....	25,000	12,875	0 51	5.2		95,000	70,567	0 74	24.3	
Jack Pine.....	25,616	14,821	0 58	5.3		66,954	53,137	0 49	17.1	
Tamarack.....	31,545	19,196	0 61	6.5		27,232	13,808	0 51	7.0	
Hemlock.....	52,763	23,426	0 44	10.9		19,563	7,427	0 38	5.0	
Oak.....	2,925	2,391	0 82	0.6		14,760	13,044	0 88	3.8	
Spruce.....	24,636	10,292	0 42	5.1		8,000	2,800	0 35	2.0	
Douglas Fir.....	156,930	68,032	0 43	32.5		5,982	2,439	0 41	1.5	
Elm.....	90	157	1 74	*		3,348	1,981	0 59	0.9	
Western Larch.....						2,512	1,889	0 75	0.6	
Hard Pine.....	4,200	2,940	0 70	0.9		1,065	1,108	0 55	0.5	
Beech.....						152	152	1 00	*	
Maple.....						61	61	1 00	*	
White Pine.....	181	384	2 12	*						

* Less than one-tenth of one per cent.

While the electric railways in Canada in 1913 purchased only two per cent of the ties, they paid the highest average price for their material.

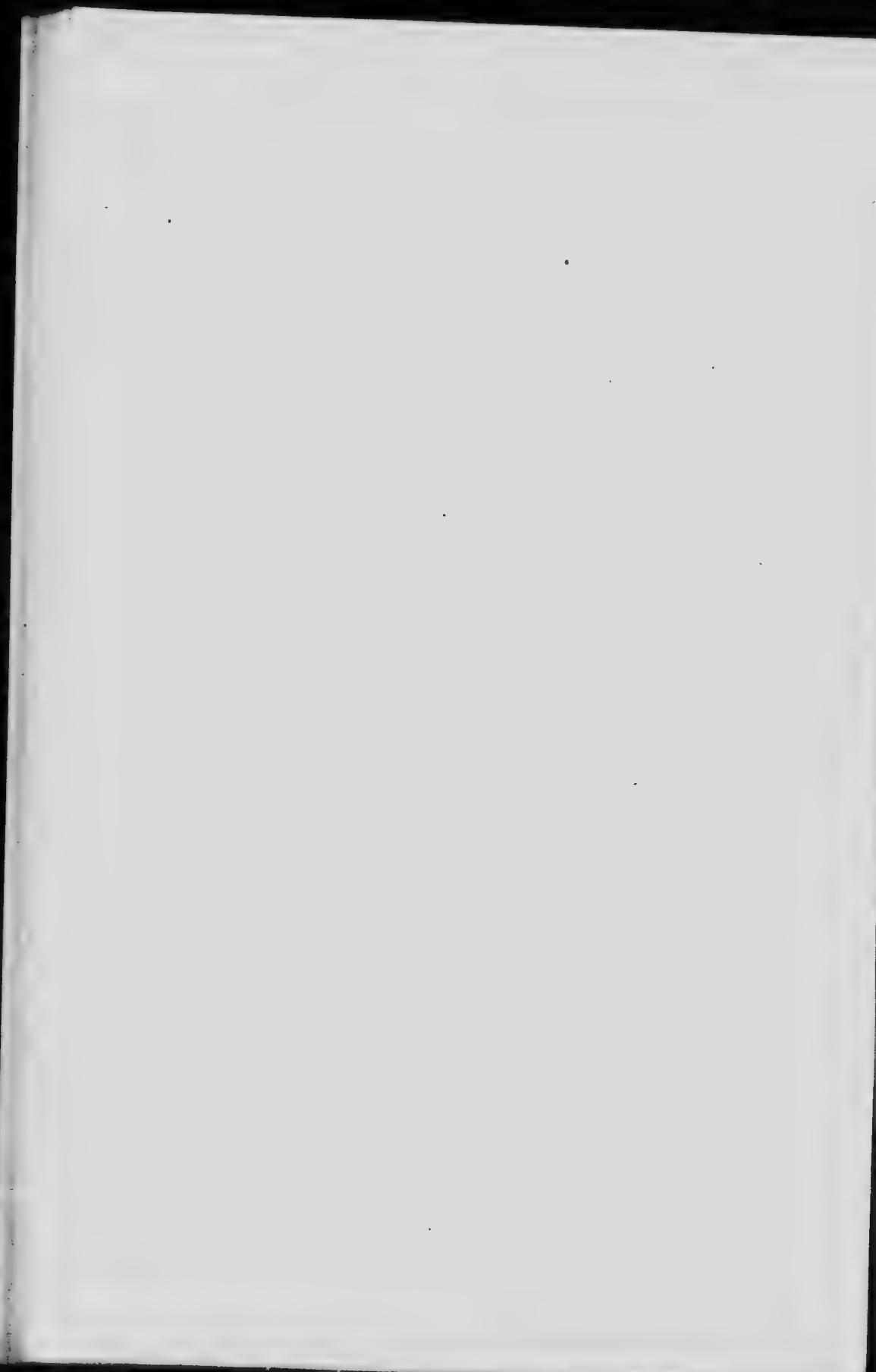
The total for 1913 was a decrease of 19.1 per cent from 1912. The two cedar species in this class formed together three-fifths of the total, and jack pine, which was the most important wood used by the steam railways, was of only secondary importance. As a general rule the more durable native woods

were purchased by these companies and the treated ties formed less than one per cent of the total. Oak and cedar ties were imported in the largest quantities, together with all the hard pine, beech and maple. Of the oak ties reported 9·3 per cent were treated, as were all the imported beech and maple ties.

The only western species reported were red cedar, Douglas fir and western larch. These companies paid, on an average, 16 cents a tie more than the steam railways. This price was an increase of 8 cents over that of 1912, increasing with the cedars and with oak. All the other woods showed decreases in average cost.

PRESERVATIVE TREATMENT.

In Canada in 1913 about 10·0 per cent of the cross-ties purchased by both classes of railways were given a preservative treatment to retard decay. The practice is a fairly recent one, as is seen by the fact that in 1910 practically no ties were treated at all, and that the percentage of treated material has increased steadily since that time. The treatment, under present market conditions, is most profitable when applied to the harder, stronger woods that if used untreated would decay before the end of their mechanical life.



A P P E N D I C E S

APPENDIX 1.—Directory of Sawmills in Canada.

APPENDIX 2.—List of Active Canadian Pulp Mills.



APPENDIX No. 1.

DIRECTORY OF SAWMILLS IN CANADA.

NOTE.—The manufacturers whose names appear in this list are those from whom replies have been received for this bulletin as to their lumber production for the year 1913. No attempt has been made to separate mills not operating during the year from those in actual operation. Names prefixed by an asterisk (*) are those of firms that manufactured 20,000,000 feet, board measure, of lumber in 1913.

ONTARIO.

Ackert, J. H., Holyrood.
Adair, W. J., Black Bank
Ainslie, J. S., & Bros., Comber
Aitchison Bros., Hillsview
Allan, W. T., Rylstone
Allan Wm., & Son, Perth
Allen, John J., Mount Irwin
Alton, Geo. H., Appleby
Ament, P., Brussels
Ament Bros., Seaforth
Anderson, C. G., Lumber Co., Ltd., Toronto
Anderson, James, Chesley
Anglin, Frank, Brewer's Mills
Anglin, S., & Co., Kingston
Appleby, R. M., Scotia
Archer, Edward, Fowler's Corners
Armstrong, P. A., Milberta
Ashby, Chas., & Son, Havlock
Ashcroft, John, Howden Vale, via Wiarton
Ashley, Albert, Manitowaning
Atchison & Co., Cornwall
Austen, J., & Sons, Kinmount
Austin, A. H., Stanley
Austin & Nicholson, Chapleau
Avonton Saw Mill, Avonton
Ayton Saw & Planing Mill, Ayton

Babcock, John H., Odessa
Backhaust, John, Port Rowan
Badour, L. J., Ferguson's Falls
Baechler, Chas., Kinloss
Baechler, Peter J., Sarnia, (also Widdifield)
Bailey, A. & W. J., Hagarville
Bailey, Geo. E., & Son, Badjeros
Baird, H., & Co., Markdale
Baird Bros., Plattsville
Baker, Alexander, Pendleton
Baker, Ira W., Caftown
Ball, J., Baltimore
Barnes, W. G., Green River
Barr, John H., Cobden
Barrowclough, Elijah, Wesleyville
Barry, Walter, Clay Bank
Bartholomew, Henry, Vanessa
Bartholomew, John, & Son, Stouffville
Batman, J. T., Shequindah
Baxter, R. W., Chatham
Beach, F. W., Iroquois
Beach, M. F., & Co., Winchester
Board, Marshall, Vandeleur
Beck, Chas., Mfg. Co., Ltd., Penetanguishene
Becker, Conrad D., Wellesley
Becking, Wm., Teeswater
Bell, E., & Sons, Gibson
Berger, J. J., & Co., New Hamburg
Berry, Capt. S. & W. J., Providence Bay
Bigras, Alex., Hanmer

ONTARIO—Con.

Binkle, Ph., Neustadt
Bird, Andrew, Coe Hill
Bishop, A., & Co., Fort William
Bishop, W. S., Kimberly (Co. Grey)
Bissonnette, Alex., The Brook
Black, John, & Sons, Brochin
Blackmore, John, White Hall
Blackwell, George, Westmeath
Boegel, Mrs. Bertha, Linwood
Bogart, N. B., Ufford
Bolton Bros., Portland
Bonter, Wm., & Sons, Marmora
*Booth, J. R., Ottawa
Booth, Wm. J., Earlton
Booth & Shannon, Biscotasing
Borland, George, & Son, Coldwater
Bousfield, G. E., Milton West
Bowen Bros., Castleton
Bowman, D. M., Floradale
Bowman, Levi M. B., Waterloo
Boyd, Caldwell & Co., Lanark
Brandt, Albert, Burk's Falls
Brant & Courvoisier, Magnanatawan
Bray Lumber Co., Powassan
Briese, H. W., Ullswater
Brigham, Henry, Allan Park
Briscow, W. L., Killaloe
Brounell, John, Bolger Bridge
Brown, A., Godfrey
Brown, Alex., Chatsworth
Brown, H. J., & Son, Marksfield
Brown, W. J., Warkworth
Bryant, J. H., Minden
Bryce, E. A., Springfield
Budd, J. W., Budd's Mills
Budscho, Jacob, Milverton
Burn, J. R., Janetville
Burrows, Albert D., Eden Mills
Burtch, Thos., Sundridge
Busch, H. I., Lovering
Butler, J. E., & Son, Vittoria
Buttermore, Wm., Merrickville
Buttrell, Geo., Fermoy

Cameron, H., Canonto
Campbell, Wm. B., Campbellcroft
Campbell & McNab, Douglas
Campsall, J. Wilson, Harrowsmith
Canada Iron Corp., Ltd., Midland
Canada Pine Lumber Co., Ltd., Hamilton
Canada Wood Specialty Co., Orillia
Canadian Handle & Lumber Co., London
Canadian Handle Mfg. Co., Ltd., Strathroy
Canboro Milling Co., The, Canboro
Canon Lake Lumber Co., McIntosh (Head Office,
Vinnipeg.)
Card, Joseph, Mountain Grove

ONTARIO—Con.

Carew, John, Lumber Co., Ltd., Lindsay
 Carkner, D., & Co., Kenmore
 Carnegie Milling Co., Port Perry
 Carson, N. E., Cape Rich
 Carter, James, Kaganwong
 Cavendish Lumber Co., Peterborough
 Chambers Lumber Co., Ltd., Rydal Bank
 Chandler-Jones Lumber Co., Ompah
 Charbonneau, G., Hanmer
 Chenier, A., Chelmsford
 Chesterfield Lumber Co., Ltd., Sterling Bay
 Chew, Manley, Midland
 Chew Bros., Midland
 Chisholm, J. M., Roslin
 Christie, George, Nolalu
 Christie, Robert, Chesley
 Clark, Geo. V., & Son, Chapman
 Clark, P. P., St. Ola
 Clarke, Thos. H., Windermere
 *Cleveland-Sarnia Saw Mills Co., Ltd., Sarnia
 Clingen, A. D., Martintown
 Clyde Forks Lumber Co., Caldwell's Mills
 Collings, F. H., Langton
 Collingwood Hardwood Lumber Co., Collingwood
 Collins Inlet Lumber Co., Toronto
 Collins, John, Honora
 *Colonial Lumber Co., Ltd., Pembroke
 Colterman & Doney, Dacre
 Conger Lumber Co., Ltd., Parry Sound
 Conklin, David, Kingsville
 Conklin, J. T., Langton
 Connell, M., Torrance
 Connell, Thos. A., Spencerville
 Connolly, W. A., South River
 Cook, Chas. W., Creighton
 Cook, Frank, Zephyr
 Cook Bros., Devlin
 Cooper, Angus, Dunn's Valley
 Cooper, H. Y., Bloomfield
 Corbett, E. C., Versailles
 Corner, Wilmot, Peterlaw
 Cottrill, B., Huntsville
 Coultes Bros., Forest
 Coults, Geo., and Sons, Thedford
 Courtney, Robt. J., & Sons, Omemece
 Craik Bros., Crampton
 Crawford, Murray, Campbellville
 Crockford, E. G., McKellar
 Croft Lumber Co., The, Huntsville
 Crossing Lumber Co., Minaki
 Culhan Bros., Stayner
 Cybulskie, Joseph, Killaloe
 Daoust & Belanger, Alfred
 Darling, Thos., Callender
 Davey, Bros., Highland Grove
 Davidson, D., Trent Bridge
 Davidson's Mills, Brighton
 Davies, Joseph, Locksley
 Dawson, A., Chesley
 Day, Robt. W., Balsam
 Dayman, E., Lynden
 Dean, J. C., Tobermory
 Dease, J. A., Port Rowan
 Deller, Wm. & Albert, Thorndale, R.R. 4
 Derbyshire, Herbert, Westport
 Devon Lumber Co., Ltd., Ottawa
 Diamond, H. & Chas. S., Dorking
 Dike & Sons, Mt. Albert
 Donnelly, J. J., Pinkerton
 Donovan, Daniel, Denbigh
 Drader, W. M., Chatham
 Drummond, J. F., Clayton
 Dryden Timber & Power Co., Dryden
 Dryden, W. C., Harriston
 Duff, John, Roseneath
 Duff & Stewart, Bluevale
 Dunbar, George, Midford

ONTARIO—Con.

Dunbar, Wm., Sundridge
 Dunlop, W. H., Kintore
 Dupuis, Peter, Purdy
 Durham Furniture Co., Ltd., Durham
 Eddy Bros. & Co., Ltd., Blind River
 Edwards, Wm. B., Belmore
 *Edwards, W. C., & Co., Ltd., Ottawa
 Ellery, Wm., Fenelon Falls
 Elliott, James, Scotland
 Elliott, J. R., Vankoughnet
 Ellis, David, Cawleton
 Ellis, Mark, Norland
 Empey, Arthur L., Empey
 Ethier, E., Dalkeith
 Evans, Francis, Port Ryerse
 Fader, Joseph, & Sons, Mill Hill
 Fenson, R., Nairn Centre
 Fenwick, W. S., & Sons, Enterprise
 Ferguson, Alexander, Oil Springs
 Ferguson, Alexander, Rocky Saugeen
 Ferguson & Englehart, Bannockburn
 Ferguson & McFadden, Tomiko
 Ferguson Bros., New Liskeard
 Fesserton Lumber Co., Fesserton
 Fetterly, Lindsay, Vars
 Siegen, Reuben, Collingwood
 Finlay & Anderson, Tory Hill
 Firstbrook Box Co., The, Penetanguishene and
 Toronto
 Fischer, V., Ayton
 Fisher, A., & Son, Paisley
 Fisher, I. H., Dundas
 Flummerfelt, John, Sandford
 Ford, Wm., Staples
 Forest Basket Co., Ltd., Forest
 Forest, Jas., Iron Bridge
 Forsyth, A. J., Burris
 Fortier, John L., Phillipsburg West
 Foster, I. J., Penitrope
 Fothergill, Edward, Beaverdale (Co. Grey)
 Fowlds Co., Ltd., The, Hastings
 Franklin, John, Southwood
 Fraser & Philips, Headslip
 Fraser & Co., Ottawa
 Freiburger, Jos., Greenock
 Fretz & Wise, Jordan Harbor
 Fry, Wm. J., Kirkfield
 Fullerton, John L., Kynoch (Algoma District)
 Fulton, Robt., Rockwood
 Fulton, Walter, Fulton Mills
 Gagnon, M., Monkland
 Galvin, W. J., Almonte
 Gammond, Fred., Slate River Valley
 Gardiner, B. F., Thornloe
 Geddes, Walter, Dalhousie Lake
 *Georgian Bay Lumber Co., Waubaushene
 Gettier, J. R., Motherwell
 Gill & Fortune, Trenton (also Gilmour)
 Gillies, D. H., & Son, London
 Gillies, Robt. & P., Exeter
 Gillies, Sam., & Sons, Ailsa Craig
 Gillies, Wm., Tobermory
 *Gillies Bros., Braeside
 Glass, John, Milford Bay
 Goetz, J. K., Dashwood
 Golden & Waller, Aspin
 Gole, George, Breslau
 Goodwillie, John A., Welland
 Gordon, A. W., L'Amable
 *Gordon, G., & Co., Ltd., Cache Bay
 Gordon, Wm., Bridge End
 Graham, J., Elmvale
 Graham, R. L., Silver Water
 Grant, Peter, Bobcaygeon
 Grant, P. J., & Kennedy, New Liskeard

DIRECTORY OF SAWMILLS IN CANADA.

63

ONTARIO—Con.

Gratton, F., North Bay
 Graves, Bigwood & Co., Toronto
 Greer, John, Sucker Lake
 Grieve, John, Parkhill
 Grop Bros., Penetanguishene
 Gunter, R. H., McCrae
 Hagar, A., & Son, Jessop Falls
 Haines, A. T., Cheltenham
 Hall, Joel, Silver Hill
 Hallinan, J. C., New Dundee
 Hambly, T. C., Tory Hill
 Hamilton, Wm., Silver Lake
 Hamilton & Prout, Forest
 Hamilton Bros., Glen Huron
 Hardie, James, Hurdville
 Hare, Robert, MacLennan
 Harmer, R. J., Fullarton
 Harris, Henry, Waubamick
 Harrison, Sons & Co., Ltd., Owen Sound (also Algoma Mills.)
 Harrison, Robert, Orangeville
 Harrison, W. C., Norwood
 Harvey, R. G., & Sons, Lyndhurst
 Hatton, W. H., Ivy
 Hawes, R. A., Otterville
 *Hawkesbury Lumber Co., Ltd., Hawkesbury
 Hasen, Mathias, Port Rowan
 Heard Bros., Bridgenorth
 Heaslip Lumber Co., Heaslip
 Henderson, David A., Nassagaweya
 Henderson, James, Branchton, R.R. No. 2
 Hepworth Mfg. Co., Ltd., The, Hepworth
 Hermiston, Michael, Dayton
 Heron, August, Barry's Bay
 Herron, J. & J., Herron's Mills
 Hickox, Chas., Charlton
 Hicks, N. A., Webbwood
 Highland Lumber Co., Ltd., Berriedale
 Hill, Lewis, (Hill Lumber Mill) Birkendale
 Hocken Lumber Co., Otter Lake
 Holden & Co., Little Rapids
 Holden, Wm., Starrat
 Holgate, C. H., Moira
 Hope & Elmhurst, Lang
 Hope Lumber Co., Thessalon
 Horton, Eli, Welland Jet.
 House, John, Courtland
 Howell, L., & Son, McMurrich
 Howell, Lorenzo, & Son, Yearley's
 Howes, John, Harriston
 Howey, J. C., Nanticoke
 Howson & Lawson, Auburn
 Hubbell Bros., Bancroft
 Huffman, Paul, Northfield Centre
 Hughes, Wm., Marmora
 Hugli, Fred., Golden Lake
 Hummel, Thos., Trout Creek
 Hunter, A., & Sons, Gooderham
 Huntsville Lumber Co., Ltd., Huntsville
 Huntsville Syndicate, Ahmic Harbor
 Hutchinson, W. J., Caledon East
 Hyslop & Sons, Greensville
 Ilan, John, Matawatchan
 Innes, L., & Sons, Richmond Hill
 Ireland, James, Riverview R.M.D.
 Jackson, A., Kendal
 Jackson, John, Seguin Falls
 Jackson, S., & Son, Wagaryville
 James Bay Lumber Co., Gowganda
 Jamison, John, Barrie
 James, C. B., & Co., Orillia
 James, H., Delaware
 Jeffrey, John, & Co., Oranmore
 Jervis, John, & Sons, Dorchester Station
 Joanis, J., Rockland

ONTARIO—Con.

Johnston, Fred., Arkona
 Johnston, Hunter & Crawford, Wiarton
 Johnston, W. D., Esquesing
 Johnston, W. H., Pefferlaw
 Jones, J. H., Thamesford
 Julien, Geo., Feversham
 Kaufman, Jacob, Rosseau Falls
 Kaufman, L., Shawanaga
 Keenan Bros., Ltd., Owen Sound
 Keeso, John, Listowel
 Kelly, Thos., Roseneath
 Kelly, W. B., Lumber Co., Bridgenorth
 Kendall, R. F., Kenora
 Kennedy, Floyd F., Mt. Elgin
 Kent, Wm. J., Pevensey
 Kilusky, Frank, Bancroft
 Kitchen, Thos., & Sons, Lovering
 Knapp, J. M., Anten Mills
 Knight Bros., Burk's Falls
 Konkle, Geo. E., Bramsville
 Krause, Albert, Williamsford
 Krug Bros., & Co., Ltd., Chesley
 Kyle, P., (Estate of), Burritt's Rapids
 Ladouceur, Chas., Sowerby
 Lafleur, P. J., Earlton
 Lake Rosseau Lumber Co., Bonkview
 *Lake Superior Paper Co., (Saw Mill Dept.) Sault Ste. Marie
 Laking, Wm., Lumber Co., Ltd., Haliburton
 Langford, Abner, Granton
 Langford, B., Lucan
 Larocque, A., Embrun
 LaRue, S., Mountain
 Laviolette, Chas., Camel Chute
 Laviolette, Geo., Greenfield
 Lawrence Bros., Ltd., Canonto
 Lee, Jas., Ben Allen
 Legree, Austin, Khartum
 Leushner, F. P., Waubamick
 Light, R., Napanee
 Lindsay, Adam, Renfrew
 Little Current Lumber Co., Little Current
 Lloyd, J. Alfred, Pottageville
 Locke, Thos., Campbellford
 Louks & Thorne, Hamilton
 Lounsbury, R. E., Eastwood
 Lowery, J., Parham
 Lucknow Table Co., Lucknow
 Ludgate, James, McKellar and Parry Sound
 Lusty Lumber Co., Ltd., Rodney
 Lynch & Ryan Lumber Co., Westwood
 McAllister, George, Bloomingdale
 McAllister Lumber Co., Ltd., The James,
 Chute à Blondeau
 McAlpine, Bruce, Marshville (also Welland)
 McAmmond, W., Maple Island
 McArthur, S., Almonte (also Ramsay)
 McArthur Bros., Murillo
 McCall & Co., St. William's
 McCamus & McElvie, New Liskeard
 McCann, E. A., & Sons, Dorchester Station
 McCauley, Hugh, Ettyville
 McCrae, James, Troybridge
 McCreary, James, Sr., Geneva
 McDonald, Alfred, (Estate of), Peterborough
 McDonald, J. E., Port Rowan
 McEachern, D. J., Alvinston
 McEwen Bros., Bayfield
 McGibbon Lumber Co., The, Penetanguishene
 McHenar, I., Sundridge
 McInnis, F. C., Leeburn
 McKay, Angus, Dorset
 McKay, John, Lovat
 Mackie, A. T., Pembroke
 McKillop, A., & Sons, Ltd., West Lorne

ONTARIO—CON.

McKinnon, D. A., Maxville
 McLachlan Bros., Arnprior
 McLachlin, Wm., Maganatawan
 McLarty, Robt., McLarty
 McMarn, Howard, Berwick
 McMarn, Wm. T., Chesterville (R.R. No. 1)
 McMillan, Wm., Dryden
 McNair, Donald, & Son, Whitewood Grove
 McNaughton, John R., Dominionville
 McNeill & Co., Sturgeon Falls
 McPherson, D. J., South Lancaster
 McQuillan, A., Webbwood
 McTavish, Archie, Cedarville
 Mack, John, & Sons, Wattenwyne
 Mallard, W. J., Oxenden
 Malloy & Bryans, Haliburton
 Manitoulin Lumber Co., Ltd., Windsor
 Maple Lake Lumber Co., Massey Station
 Marceau, J. H., North Bay
 Marshall, John M., Powassan
 Marshall, Robert, Washago
 Marshall, Stephen, Lefroy
 Marshall & Arnett, Sprucedale
 Martin, J. L., Kars
 Martin & Nielgrove, Milton
 Martin Lumber Co., The, Hillsdale
 Mather, D. L., Kenora
 Maxwell, David, & Sons, St. Mary's
 Mennard, Frank, Sturgeon Falls
 Metcalf, Fred W., Redwing
 Metcalf, John T., Redwing
 Michener, Wm., St. Ann's
 Mickle, Dymont & Sons, Gravenhurst
 Midland Lumber Co., Midland
 Milburn, Chas., & Son, Desboro
 Mildmay Electric Light & Lumber Co., Mildmay
 Miller, A. O., Avonmore
 Miller, F. A., Bruce Mines
 Miller, J. W., Walsh
 Mills, Alex., Merrickville
 Mills & Wynn, Woodham
 Milne, John H., Agincourt
 *Milne, Wm., & Son, Ltd., Trout Mills
 Milne & Bros., Lefroy
 Mitchell, Alfred, Powassan
 Mitchell Bros., Berkeley
 Mitchell Bros., Cockburn Island
 Mogk, Henry, Bornholm
 Mollins, T. E., Burgessville
 Monger, Oliver, Mt. Brydges
 Moore, Arthur, Falkenburg
 Moore, Edward, Frogmore
 Moore, T. J., Wiarton
 Moote, S. S., Dunnville
 Morton, T., Stapleton
 Mouthroy Lumber Co., John Island
 Mountjoy Lumber Co., Timmons
 Mullen, John, Lucknow (Box 222)
 Mulloy, H. S., South Wilberforce
 Mundell, J. C., & Co., Elora
 Munroe, L. & E., Perth (R.M.D. No. 3)
 Murphy, Chas., Steenburg
 Murphy, J. E., & Co., Tobermory
 Murphy Bros., Kenora
 Murray, J. C., Katrine Station
 Muskoka Lakes Lumber Co., Ltd., Gravenhurst
 Muskoka Wood Mfg. Co., Huntsville
 Mustard, John B., Brucefield
 Mustard, W. A., Bayfield
 Mutton, W. W., Colborne
 Neilson, R., & Son, Proton (Co. Grey)
 Newman, N.-Ison, Uphill
 Nichols, W. A., Carleton Place
 Niebergall, George, & Son, Parry Sound
 North American Bent Chair Co., Ltd., Owen Sound
 Northern Construction Co., Fort Frances
 Noxell, Wm., Komoka

ONTARIO—CON.

O'Brien, Michael J., Renfrew
 Oldrieve, G. A., Wallacetown
 Oldrieve, John, Glencoe
 Olin, Levi, Novar
 Oliver, A. H., & Co., Udney
 Olinstead Bros., Walter's Falls
 O'Neil Co., Kenilworth
 Owen, Edward, Richard's Landing
 Palmer, D. J., Elmhedge
 Paris, James, Whitelake
 Parish, W. G., Athens
 Parker, R., & Sons, Uno Park
 Parker Bros., Parkersville
 Parks, Frank W., Cooper
 Patrick, George A., & Son, Delaware
 Peacock, Chas. H., Coe Hill
 Pearce Co., Ltd., Marmora
 Pedwell, Chas., Lionhead
 Pedwell, E. C. M., Thornbury
 Pedwell, Wm., Brookholm
 Peldo, H., Nolalu
 Pembroke Lumber Co., Ltd., Pembroke
 Pennan, Jas., Middleville
 Perry, Samuel R., Woodstock (R.R. No. 5)
 Persall, John, & Co., Caledonia
 Peter, Wm. (Estate), Parry Harbor
 Peterboro Lumber Co., Ltd., Peterborough
 Phillips, Jos. H., Burnt River
 Phillips, Thos. W., Eugenia (Co. Grey)
 Pickard, A. E., Wiarton
 Pierson, John, Stevensville
 *Pigeon River Lumber Co., Port Arthur
 Pilon, F., Verner
 Place, F. D., Algonquin
 Playfair, Jas., & Co., Midland
 Playfair, John E., Playfair
 Poaps, R. A., Leonara
 Poisson, E. C., Belle River
 Poilock & Sons, Englehart
 Poncher, Daniel, Poncher's Mills
 Potter, Wm., & Son, Beeton
 Potts, Jas., & Sons, McIntyre
 Powassan Lumber Co., Powassan
 Prentice, John L., Minden
 Presley, Robert, Carleton Place
 Pretty, Jas., & Son, Sandusk
 Prince Bros., Barry's Bay
 Pringle, John F., & Co., Charlton
 Prout, W., Castleton
 Quade, A. C., Quadeville
 Quade, A. F. F., Quadeville
 Quance Bros., Delhi
 Quickfall, W. C., Glen Allan
 Quincy-Adams Lumber Co., Langford Mills
 Quinn & Keown, Dwight
 Quirt, Chas. C., Midford
 Ransford, John, Clinton
 *Rat Portage Lumber Co., (Head Office, Winnipeg)
 Rathbun Lumber Co., Deseronto
 Rattcliffe, W., & Pleben, John, Ringwood
 Ratz, J. E., & Co., N. Wesley
 Ratz, John, & Sons, Khiva
 Ratz, W. K., Restoule
 Readhead, John, Lowville
 Reid, Colin, Jr., & Bros., Bothwell
 Reid, Jas. H., Bear Lake
 Reid, J. Miles, West Huntingdon
 Reid, W. I., Co., The, Ayr
 Reid Bros., Lavant Station
 Renwick, Robert, sr., Dromore
 Richards, Harry, Dacre
 Richardson, Jas., Kerwood
 Richardson, U., Elora
 Richardson, Wm., Axe Lake
 Riddell, Andrew, Hopeville

DIRECTORY OF SAWMILLS IN CANADA.

65

ONTARIO—Con.

Rideau Lumber Co., Ottawa
 Riordon Paper Mills, Ltd., Hawkesbury
 Rixon, Ainslie, Stoddart Co., Ltd., Owen Sound
 Robinson, Richard, Waterford
 Rock Lake Lumber Co., Dryden
 Rogers Bros., Minden
 Romlewski, John, Barry's Bay
 Ross, Jas. C., Markdale
 Rosedale Saw Mill Co., Ltd., Toronto
 Ross, L. A., Cornwall
 Ross & Taylor Co., Exeter
 Rous, C. A., & Sons, Lynden
 Rowe, W. H., Riceville
 Ruppel, John H., Kurtsville
 Rutledge, W. E., Newmarket (Box 563)
 Ruttle, Chas., Udoa
 Ryckam, J. E., Charlton
 Rydall, John, MacLennan
 Sadler, Wm., Staffa
 St. Mary's Wood Specialty Co., St. Mary's
 Sample, Robert, Perth
 Sampson, Frank, Jr., Bonfield
 Sanderson & Armstrong, Boston
 Saunders, S., & Son, Watford
 Saunders Bros., Sutorville
 Sayers, Frank F., Rockwood
 Schell, M. & W., Woodstock
 Schnitzler, Mrs. A., Lauriston
 Schram, Oliver, Hymers
 Scott, W. B., Milford
 Scripture, J. C., Coe Hill
 Seaman, N. D., & Sons, Sauble Falls
 Seebach, Louis, Mitchell (R.R. 2)
 Seguin, Albert, North Bay
 Seibert, J., Southampton
 Shannon, P., & Co., Massey
 Shaver, A. M., Ancaster
 Shaw & Earle, Hallville
 Shea, John L., Ufford
 Sheard, Wm. J., Southampton
 Shepard & Morse Lumber Co., Ottawa
 Shepherd, John A., Scotland (R.R. No. 3)
 Shepley, Reuben S., Echo Bay
 Sheriff, J. H., Dunsford
 *Shevin-Clarke Co., Ltd., Fort Frances
 Shier, J. D., Lumber Co., Ltd., Bracebridge
 Shir, Arthur, White Hall
 Shir, Benj., & Son, Humberstone
 Shir, David S., & Sons, Sherkston
 Shirra Milling Co., Caledonia
 Shortreed Bros., Hillsdale
 Shortreed Lumber Co., Kearney
 Shumaker, Valentine, Fisherville
 Simpson, Thos., Dunchurch
 Slack, P. Edward, Brinsley
 Slade, F. J., Fenella
 Smith, A. Sidney, Port Sydney
 Smith, C., & Sons, Durham
 Smith, D. C., Broadbent
 Smith, F. A., & Co., Charlton
 Smith, John, Sydley
 Smith, John, & Sons, Callender
 Smith, Sam., Port Rowan
 Smithson, C., Bennie's Corners
 Snider, J. W., New Liskeard
 Snider, Jesse, & Son, Hillview
 Snyder, Uriah, New Dundee
 *Spanish Mills Co., Ltd., Spanish Mills
 Spears & Lauder, Burk's Falls
 Spencer, Cornelius, Ursia
 Sprucedale Lumber Co., The, Sprucedale
 Stacey, W. J., Wooley
 Standard Chemical Iron & Lumber Co. of Canada, Ltd., Toronto
 Standard Hardwood Lumber Co., Owen Sound
 Stanton, James, Portland
 Staples, R., Franklin

ONTARIO—Con.

Stearns, M. L., & Sons, L'Original
 Steinmann, N., Josephsburg
 Stephen, Anthony L., Loring
 Stephenson & Payne, Appin
 Stewart, Hugh, Hopetown
 Stewart, John, Wabu
 Stirzinger, John W., Fenwick
 Stone Lumber Co., Marksville St. Joseph's Island
 Stott, Wm., Wyevale
 Stoutenburg, P., Collingwood
 Suddaby, Thos. W., Port Lock
 Sutherland-Innes Co., Ltd., Chatham
 Sweitzer & Co., Shipka
 Taplin, E. W., Novar
 Taylor, George H., Stratford
 Taylor, Lumber Co., The Fred., Maganatawan
 Taylor, Orrie, Massie
 Taylor, Scott & Co., Palmerston
 Taylor, Thos., Ancaster
 Tench Estate, Waterford
 Tennant, George, Bracebridge
 Tett, J. P., & Bros., Bedford Mills
 *Thessalon Lumber Co., Nesterville
 Thunder Bay Lumber Co., Midland
 Todd, F. G., St. Helen's
 Todd, James, Jr., Burritt's Rapids
 Towns, George, Bognor
 Tomstown Lumber Co., Tomstown
 Train, Amos, New Flos
 Treloaven, Thos. H., Lucknow
 Tripp, Guy G., Franklin
 Troup, George, Sherkston
 Trout Creek Lumber Co., Nipissing
 Truax, R., & Co., Walkerton
 Trussler Bros. Ltd., Trout Creek
 Umpherson, James, Layant Station
 Uterson Lumber Co., Uterson
 Vance, J. J., Cottam
 Vankleek Hill Mfg. Co., Ltd., Vankleek Hill
 Varrin, James, Griffith
 Vincent, P., North Lancaster
 Voght, George, Adamsville
 Walker, A. T., Saw Mill, The, Markdale
 Walker, James, Huntsville
 Wallace, D. E., Thamesville
 Warren Lumber Co., Sillwood
 Watson, John, Caesarea
 Watson, Neil, Mull
 Watson & Taylor, Ridgewton
 Webster, Jesse, Elmvale
 Weeks, W. H., & Son, Escott
 Weiler, Christian, & Son, Formosa
 Weismiller, Herman, Bracebridge
 Welsh, Thos., Hensall
 West & Peachey, Simcoe
 Westcott, Wm. Henry, Ailsa Craig (R.R. No. 1)
 Wettheuer, Louis, Ayton
 Whicker, C. E., Colpoys Bay
 White, James L., Heathcote
 Widdifield, W. P., Siloam
 Williams, J. M., Parry Sound
 Williamson, John, Stanley
 Williamson, John, Stockdale
 Willows, Colin, Carleton Place
 Wilson, Robert, Bar River
 Wilson Bros., Sundridge
 Winters, John, Hogan
 Wise, Henry, Craighurst
 Wise, Henry, St. Catharines
 Witheringshaw & Parker, Hymers
 *Wolverine Cedar & Lumber Co., Sault Ste. Marie
 Wood, W. S., Oxford Centre
 Woodecock, John E., Tamworth
 Wood's Mills Co., Smiths Falls

ONTARIO—Con.

Yates, G., Baldwin
 Young, Thos., Sangster
 Zimmerman Bros., Tavistock

QUEBEC.

Agagnier, Jos., & A., St. Malo Station
 Ainsley, Benj., & Sons, Thetford Mines
 Alarie, Chas. & Eugene, Brébeuf (Terrebonne)
 Alexander, Andrew, Kaaabauau
 Alie, Mrs. Ernest, River Joseph
 Allan, Jno., Kinnear's Mills
 Allard, Tel., L'Avenir
 Allard, Uld., Courcelles
 Amyot, E., & Son, Wilson's Corners
 Angers, L. Nap., St. Norbert
 Arcand, C., & Fils, Portneuf
 Argenteuil Lumber Co., Ltd., Marin Heights
 Argue, H. T., Shawville
 Armstrong, J. H., St. Adolphe de Howard
 Arsenault, J. B., St. Valère de Bustreide
 Aubestor Corporation of Canada, Thetford Mines
 Atkinson, Henry, Etchemin
 Atwell, Volny G., Mansonville
 Aubin, J. Octave, Hebertville
 Aubin, Wilfred, St. Donat de Montcalm
 Auchair, Desiré, Rivière à Claude
 Audet, George, St. Édouard de Frampton
 Audet, Isaac, La Présentation (St. Hyacinthe)
 Audet, Jos., St. Gédron
 Audet, Samuel, Saints Anges
 Auger, Cleophas, St. Croix (Lothbiniere Co.)
 Auger & Son, St. André, Kamouraska
 Baie St. Paul Lumber Co., Baie St. Paul
 Baillagion, Octave, Buckland
 Baillie, Odilon, Baie St. Paul
 Baillie, W. & J., Aylmer
 Baldwin, W. R., Baldwin's Mills
 Baribeau, Hormidas, St. Paulin
 Baril, Napoleon, Tingwick
 Barter & Bishop, Marbleton
 Businet, Chas., St. Jean de Matha
 Bazinet, D., & Frères, St. Hugues
 Beaupre Pulp and Lumber Co., Quebec, (Mills at
 Scott Junction)
 Beauchemin, Philippe, St. Paulin
 Beauchemin & Frères, St. Elie de Caxton
 Beaudet, Jos., Mistassini
 Beaudoin, Avila, Laurentides
 Beaudoin, David, St. Léger, Compton Co.
 Beaudoin, Jean, St. Véronique
 Beaudoin, Jos., St. Héodore
 Beaudoin, J. L., Leeds (Megantic Co.)
 Beaudoin, Onésime, St. Agathe
 Beaudoin, T., Leeds Station
 Beaudry, Adolphe, St. Beatrix
 Beauvieu, Jos., Notre Dame de la Merci
 Beaumont, F., Ste. Catherine
 Beaumont, Jos., St. Augustin, Portneuf
 Beaupré, Cyprien, St. Étienne des Grés
 Beauregard, Jos., North Stukely
 Beausoleil, Jos., & Fils, St. Félix de Valois
 Bedard, Jos., & Sons, Richmond
 Bedard, Thos., St. Louis Ravignon
 Bedford Mfg. Co., Bedford
 Belaire, O., St. Adrien
 Belanger, J. B., Ponsonby
 Belanger, Narcisse, St. Jérôme, Terrebonne
 Belgo-Canadian Pulp Co., Shawenigan Falls
 Benard, Delphis, Northfield Centre
 Berberry & Boisly, St. Côme
 Bergeron, Adolphe, Danville
 Bergeron, Hercule, St. Leonard
 Bergeron, Omer, St. Clothilde (Arthabasca)
 Bergeron, Philippe, St. Fulgence

QUEBEC—Con.

Bergeron, Zenon, St. Charles de Mandeville
 Bergeron & Frère, Trottier, (St. Hélène de Chester)
 Berlinguette, N., West Templetown
 Bernard, Felix, St. Charles Caplin
 Bernard, Henry & J. A., Carleton Centre
 *Bernard, Fr., St. Félicien
 Bertrand, Maurice, Masham Mills
 Berube, Jos., L'Épiphanie
 Bessette, Jos. O., & Frère, La Conception
 Bherer, Wilfred, St. Fidèle
 Bilodeau, Antoine, St. Patrice de Beaurivage
 Bilodeau, Louis, St. Sylvester
 Bishop, Orran M., Bishop's Crossing
 Bisson, F., St. Anastasie
 Blain, Geo., Co., Ltd., St. Euphémie
 Blanchette, Alexandre, Matane
 Blanchette, Félix, West Wickham
 Blanchette, Jos., L'Avenir
 Boisjoly, Moïse, Lanoraie
 Bourne, Hormisdas, North Stukely
 Boissonneau, Jos., St. Jean d'Orléans
 Boisvert, Zoé, St. Elphège
 Bondu, Jos., Notre Dame du Pont Main
 Bonin, D., Lanoraie
 Bouchard, Dominien, L'Anse St. Jean
 Bouchard, Elzear, St. Irénée
 Bouchard, Jos., Baie St. Paul
 Bouchard, Jos., St. Eleuthère
 Bouchard, Louis, Baie St. Paul
 Boucher, Alexis, St. Paul de la Croix
 Beaupreau, Z., West Brome
 Bouffard, Jos., St. Léon de Standon
 Boulanger, Ephrem, St. Isidore
 Boulanger, Jos., St. Alexis des Monts
 Boulet, Narcisse, St. Paul du Bouton
 Boulianne, Henry, Bon Desir
 Bourget, Ulric, St. Adrien de Ham
 Bourque, Jno. L., Valcourt
 Bourret, Raymond, St. Guillaume d'Upton
 Boutin, Jos., St. Théophile
 Bown, W. A., Lenoxville
 Boyer, Jos., St. Louis Station
 Breton, Francois, St. Nérée
 Brisbin, Chas. H., Vicars
 Brochu, Jos., St. Benoit Labre
 Brock, E. (See Highland Sawmill Co.)
 Brompton Falls Pulp & Paper Co., The, East
 Angus
 Brouillard, Ovide, Carmel
 Brouillette, Chas. G., Mansonville
 Brown Bros., Danville
 Bruneau, Félix & Zoë, Ste. Mélanie
 Bruneau, Napoleon, St. Damien de Brandon
 Brunelle, A., & Co., St. Rosaire
 Brunette, Joseph, Ste. Thérèse de Blainville
 Bugold, Wm., Maria
 Burbank, E. R., Barnston
 Bureau, Édouard, St. Romain
 Burrill Lumber Co., Ltd., Three Rivers
 Busque, Jos., & Son, Touffe de Pins
 B. & S. Lumber Co., Tartigou, (Matane Co.)
 Call, L. M., Call Mill, West Brome
 Cameron, Wm. H., Stornaway
 Campbell, J. Arthur, & Co., Dalesville
 Caron, Alph., L'Anse au Beaufils
 Carrier, Wilfred, Peribonka
 Carufel, E., St. Elie de Caxton
 Cassavant, Pierre, Minerve
 *Cascapedia Mfg. & Trading Co., Little Cascapedia
 Cass, L. O., Builer
 Caswell & Mooney, Scotstown
 Cayouette, J. Emile, Kiroac
 Chabot, Édouard, Armagh
 Chabot, Ferdinand, St. Justine
 Chabot, H., Beaumont
 Chabot, Philéas, Langevin
 Chabot & Allaire, St. Zacharie

QUEBEC—Con.

Chadsey Lumber Co., Danville
 Chaleur Bay Mills Co., Restigouche
 Champagne, H., St. Cyrille de Wendover
 Charlebois, Albert, Paquetteville
 Chaput, W., St. Edmond
 Charest, Pierre, Ste. Félicité
 (de) Charette, Ed., Charette Mills
 Charlemagne & Lac Ouareau Co., Montreal
 Château Richer Lumber Co., Château Richer
 Chauvin, Antoine, Woburn
 Chicot, Octave, St. Marc
 Chisholm, Malcolm, Lost River
 Chouinard, J. H., St. Jean Port Joli
 Chouinard, Collin Lumber Co., Ltd., Matane
 Clark, H. H., St. Herménégilde
 Clische, Augustin, Beaure Junction
 Clough, L. L., Ayer's Cliff
 Copping, W., Joliette
 Copping Bros., Bosobol
 Cormier, Henri, Bécancourt
 Cossette, Albert H., St. Narcisse
 Côté, Euclide, Ste. Adèle
 Côté, Jos., St. Joachim
 Côté, Pierre, Ste. Sophie (Megantic Co.)
 Coupal, Adolphe, St. Jovite
 Coupal, Theodore, St. Jovite
 Courval, Dominique, Aston Junction
 Couturier, Alphonse, St. Louis de Ha Ha
 Couturier, Jos., St. George, Murray Bay
 Craig, Wm., Stonham
 Cramer, W. A., Way's Mills
 Cross, Freeman, Cascades
 Cummings, A. H., & Sons, Coaticook
 Cummings, M. N., River Desert
 Dallaire, Pierre, Rivière au Doré
 Damour, Jos., & Son, St. François de Whitworth
 Dansereau, Adjudor, Lavaltrie
 Dansereau, Geo., Greenvile
 Dansereau, J. H., Three Rivers
 Danville Chair & Specialty Co., The, Danville
 Dawson, S., & Sons, Mille Iles
 Dea, Philippe, L'Anse à la Barbe
 Delisle, Alphonse, Broughton Station (Beauch Co.)
 Demers, Honore, St. Samuel, Lac Megantic
 Demers, J. Telephore, Rivière au Doré
 Dennison, I. & J., Dennison's Mills
 Denomme, J. B., St. Damien de Brandon
 Denoncourt, W., Grandes Piles
 Dent, Peter, St. Sixte
 Dery, Joseph, Mistassini
 Desaulniers, A. L., Yamachiche
 Desbiens, Francois, St. Epiphanie, Temiscouata
 Deschambault, R., St. Jerome
 Desjardin, Francis, Ste. Beatrix
 Desmaraux, S., St. Bonaventure d'Upton
 Desmaraux, X., Farrelton
 Desmaraux & Messier, Richmond
 Desrochers, J. B., St. Flavien
 Dion & Paradis, St. Roch de l'Achigan
 Dionne, Ant., St. Mathieu
 Disraeli Box Co., Disraeli
 Doyon, Jos., Rang St. Louis, St. Frédéric
 Drouin, Jules, St. Jérôme
 Drouin, Philias, Ste. Agathe
 Dube, D. N., Amqui
 Dubois, A., St. Paul de Chester
 Dubois, E., St. Jovite
 Dubois, L. Adelard, Hebertville, Lac St. Jean
 Duboyce, R. P., West Bolton
 Dubreuil, Alph., St. Placide
 Dubuc & Plante, Val des Bois
 Ducharme, J. N., & Sons, Ltd., St. Eleuthère
 (Kamouraska Co.)
 Duffy, E. J., & Son, Gould
 Duguay, David, Grand Pabos
 Dumais, Henri, Lac Bouchette
 Dumontier & Lajoie, St. Justin

75429-51

QUEBEC—Con.

Dunn, Thos., St. Etienne de Beaufort
 Duplessis, Eug., St. Janvier
 Duplin & Frères, Duplin
 Dupont & Dupont, Ste. Flore
 Dupré, Calixte, St. Paroche
 Dupuis, Cleo., St. Victor Station
 Duquet, Chas., St. Nicholas
 Duquette, Alex., Minerve
 Duquette, Euclide, & Frère, St. Eustache
 Duquette, O., St. Augustin, Two Mountains
 Durnalt, Alcide, St. Camille
 Duvault, Mls. Alfred, Victoriaville
 Earle Bros., Lachute
 Eastern Township Box Co., Distilli
 Eddy, E. B., Co., Hull
 Elliott, Walter E., Shawville
 Elliott, H. S., Shawville
 Ennis, Nap. J., Ste. Hélène de Kamouraska
 Erickson, E. J., North Wakefield
 Etienne & Brouillet, Emileville
 Farrell, Frank, Wolfe Lake
 Fasset Lumber Co., Ltd., 1—sett
 Fauteux, J. A., Perkins Mills
 Favier, E., Namur
 Fecteuil, Jos., St. Georges Est
 Fenderson, Jno., & Co., Sayabec
 Fenderson, Jno., & Co., St. Morse
 Findley, Jas. N., Radford
 Fiske, Edward, Joliette
 Flammé, H. A. E., Frère & Cie., St. Patrick
 Fletcher Pulp & Lumber Co., Ltd., Sherbrooke
 Fleurant, J. B., Nominingue
 Foley, Elie, St. Sauveur des Montagnes
 Forest, Louis, St. Wenesches
 Forest Reserve Pulp & Paper Co., Ltd., Montreal
 Fortier, Adolphe, St. Prosper, Dorchester
 Fortier, Jos., St. Zacharie
 Fortin, A. J., St. Henri
 Francoeur, Jos., St. Aubert
 Fraser & Co., Deschênes (Hd. Office, Ottawa
 Fréchette, Elias, St. Cyrille de Wendover
 Fréchette, L. L., St. Ferdinand de Halifax
 Frigon & Desrosiers, St. Moise (Co. Matane)
 Gadoury, Narcisse, St. Jean Maths
 Gagné, Jos., St. Bruno, Kamouraska
 Gagné, Pierre, (See St. François Lumber Co.)
 Gagné, Simon, Ste. Anne de la Pocatière
 Gagné, Zacharie, Maria
 Gagnon, Cléophas, Ste. Crèche, Lac Megantic
 Gagnon, Hilaire, St. Jean de Dieu
 Gagnon, H. Louis, Lambton
 Gagnon, Jean & Jos., Chambord
 Gagnon, L. A., Amqui
 Gagnon & Frères, St. Marcel (L'Islet Co.)
 Gade, Geo., & Sons, Waterville
 Gallant, Philibert, St. François d'Assise
 Galliboi & Boulanger, St. Pierre
 Garant, Andrew, Caplin River
 Garant, Jos., Caplin River
 Garvin, Jas., Bourg Louis
 Gauthier & Frère, Monteref
 Gauthier, Dorilas, Bon Desir
 Gauthier, F. X., Beaupré
 Gebbie, Thos., & Son, Howick
 Gélinas, Josephat, St. Boniface
 Genereux, Noe, St. Jean de Maths
 Germain & Frère, St. Félicien
 Gibson, Wm., (Rockburn Mills), Rockburn
 Giddings, Forest, Knowlton
 Giguère, Art., & Freres, St. Sabine de Bellechasse
 Giguère, Elie, St. Zacharie
 Gilbert, Aime, St. Bruno
 Gilbert, Jos., St. Elzéar de Beauce
 Gilbert, J. O., & Co., East Dudswell
 Gilbert, Theo., St. Joseph, Beause

QUEBEC - Cont.

Gillion Bros., Buckingham
 Gilmour, Mde. A., Conticook
 *Gilmour & Hughson, Ltd., Hull
 Gingras, Andre, Warwick
 Gingras, Nap., Rivière Noire
 Gingras, Mrs. Pierre, Neuville
 Girard & Lupien, Ste. Brigitte des Saults
 Gosselin, Jos., St. Etienne de Lauzon
 Goupin, Ferdinand, Ste. Germaine du Lac Etchemin
 Goupin, Phil., St. Rémi de Tingwick
 Grandbois, M. A., St. Casimir
 Grégoire, L. R., L'Épiphanie
 Grégoire, Jos., Chantelle
 Grégoire & Moïeur, Minerve
 Grenier, Jules, St. Théodore
 Grenon, Dufour & Frères, La Descente des Femmes, Chicoutimi
 Gres Falls Lumber Co., Gres Falls
 Grier, B., Montreal
 Griffin, G. A., Boynton
 Griggs, W. A., Granby
 Guelph Patent Cask Co., Ltd., Scotstown
 Guthrie, Frank C., Guthrie
 Guy, Stanislas, Tessierville
 Hall, Louis E., Bécancourt
 Hamel & Allard, Ancienne Lorette
 Hamel, Côme & Frère, St. Ephrem de Tring
 Hamilton, D. A., Fitch Bay
 Hamilton, Wm., A., New Glasgow
 Hammond, L. W., Hill Head
 Hansen, A. K., & Co., Quebec, (82 St. Peter St.)
 Hardy, Eugène, & Frères, St. Casimir
 Harrison & Co., Petite Matane
 Haveron, D., Venosta
 Hebert, Louis, Stratford Centre
 Heman, Jos., St. Méthode d'Adstock
 Héneau, Rémi, St. Norbert
 Heon Philippe, St. Louis de Blandford
 Highland Sawmill Co., Stanstead
 Hodgins, Robt. G., Shawville
 Hodgins Bros., North Clarendon
 Houldsworth, G. H., South Bolton
 Howard, B. C., & Co., Sherbrooke
 Hughes, Peter, Ripon
 Hunting, W. H., Huntingville
 Hupe, Pierre, Hull
 Hyatt, A. S., Moe's River
 Iberville Lumber Co., Sault au Mouton
 International Lumber Co., St. Sabine
 Jalbert, J. B., Fox River
 Jean, Michel, Mt. Carmel, Kamouraska
 Jean, Pierre, St. Aubert
 John, Jos., Lac Etchemin
 Joly de Lotbinière, A., Leclercville
 Joubert, Alphonse, St. Gabriel de Rimouski
 Jourdain, Françoise, Wotton
 Karr, S., Brookdale
 Kealy, Jno., Venosta
 Kelly, Matthew, & Sons, Vinton
 Kelly, P., & Co., Kelly's Mills
 Kinnear Bros., Reedsdale
 Kirkby, Isaac, Birkton
 Laberge, Naz., Péribonka
 Labrie, Nap., St. Charles, Bellechasse
 Labrie & Frère, St. Charles
 Lacaille, Sam., Nominique
 Lacasse, Théo., Ste. Claire
 Lacasse, Wilfred, Hemmingford
 Lachance & Fils, Rivière du Loup
 Lachapelle, Jos., St. Esprit
 La Cie de Meubles, Jonquieres
 Lacroix, Jos., St. Calixte de Kilkenny

QUEBEC - Cont.

Lacroix, J. B., St. Philomène de Fortierville
 Lathuime, A., St. Benoit
 Lathuime, Auguste, Arthurville
 Lathuime, B., St. Benoit Labre
 Lalleur, O. B., & Fils, Ltd., Lachute
 Laforte, J. L., Caussoud
 Lagacé, Alexis, St. Frédéric Bourassa
 Lalancette, Rousseau, St. Zéphérin
 Lamere, Albert, Lemieux
 Lamoureux & Frère, St. Théodore de Chertsey
 Lake Megantic Pulp Co., Lake Megantic
 Laliberte, Alfred, Lac aux Sables
 Laliberte, Gédéon, St. Agapitville
 Laliberte, J. E., Lourdes
 Laliberte, Jos., & Son, Ste. Cécile Station
 Lalonde, Damien, Montreal
 Lalonde, Wm., St. Clet
 Lamarche, Jos., Lachute
 Lamontagne, Arthur, St. Nérée
 Lamontagne, Jules, St. Zacharie
 Lamy, Onésime, St. Stanislas de Champlain
 Laney, Osicle & Thomas, St. Paulin
 Landry, D. O., St. Sylvester East
 Landry, E., Kingsway Falls
 Landry, Jno., Gascons
 Landry, Jos., Gould
 Langevin, A. H., Lac Labelle
 Langevin, Chas., North Timiskaming
 Langevin, Jerome & Jos., Val des Bois
 Langlois, Albert, Armagh
 Lapointe, Chas., Grandes Bergeronnes
 Lapointe, Edmond, Ruisseau des Olives
 Lapointe, Isidore, St. Camille
 Lapointe & Nolet, Buckland
 Lapré, Jos., Racine
 La Rivière, René, St. Ours
 La Rue, G. Ant., Neuville
 Latourrerie, Chas., Gracefield
 Laurendeau, Gatien, St. Cyrille de L'Islet
 Laurendeau, Narcisse, Normandin
 Lauzier, A., Cedar Hall
 Lauson, Louis, Ste. Anne des Plaines
 Lebel, Aug., Garneau
 Lebel, Jos., St. Perpetue
 Lebel, Nazaire, Hoquart
 Leblanc, Adolphe, Ferme Neuve
 Leblanc, Chas., Nouvelle
 Leclerc, Achille, Rivière Noire
 Leclerc, G. Rivière à la Martre
 Leclerc, Jos., St. Adalbert
 Leclerc & Frère, St. Rosaire
 Lefebvre, R., St. Stanislas de Champlain
 Lemay Bros., St. Camille
 Lemay, J. Alphonse, Portneuf
 Lemay, Jos., St. Croix
 Lemieux, Jos., Mistassini
 Lemyre, Amable, Yamachiche
 Leonard & Frères, Notre Dame de l'Esperance
 Lepage, Jos., Ste. Anne des Monts
 Lépicer, E., St. Emélie de L'Energie
 Lepire, Alf., Valcartier
 Letourneau, Didace, St. Magloire
 Leveillé, Alcide, Rivière à Pierre
 Levesque, Louis, St. Blandine
 Levesque, Philias, St. Honoré
 Ling, Jno., & Sons, Ste. Elizabeth de Warwick
 Little, Jas., Escuminac
 Lizotte, J. B., St. Herménégilde
 Lotbinière Lumber Co., Lyster Station
 Lupien, E., Wickham
 Lumier, H., St. Angèle de Monnoir
 Lynch, Wm., L'Épiphanie
 Lyon, E. N., Stormaway
 Mac Lumber Co., Bury
 McArthur, Peter, & Son, Dewittville
 McCall, H., Gaspe Bay South
 McCluskey, M., Laurel

QUÉBEC - Cont.

McLeod & Moffatt, Fort William
 McFrank, Michael, Venosta
 McFrank, Neil M., Venosta
 McFadden, J. J., & Co., East Templeton
 McFaul, A., & Bros., Lachute
 McGibbon, P. & A., Lachute Mills
 McKee, A. H. Benj., Stoneham
 McLaren, Jas., Co., Ltd., Buckingham
 McLaughlin & Talbot, Warden
 McLeod Bros., Milan
 McNeil, D., Ayroa
 McPherson, C. A. R., Magog
 McRae, Ed. R., Lower Ireland
 Magnan, Simon, Neuville
 Magnan, Théophile, St. Théle
 Mainson, L., St. Raymond
 Marchand, Geo., St. Théle
 Marcotte, Alfred A., South Roxton
 Marcotte, A. & R., St. Gilbert
 Marcotte, F., Shefford Vale
 Marcoux, Magloire, St. Eugène de Grantham
 Marier, Emile, St. Cyrille de L'Islet
 Marois, R., Blue Sea Lake
 Marquis, Alex., St. Isidore de Gaspé
 Marshall, M. E., Harrington East
 Marsouina Lumber Co., Marsouina
 Martel, Jos., & Frère, Belmino
 Martin, J., & Co., St. David de Yamaska
 Massé, F. X., Ste. Agathe Lothimière
 Matapedia Lumber Co., Milnikek
 Matte, H., Lac des Écorces
 Matte, Louis, Pont Rouge
 Maurin, Désiré, St. Damien
 Meilleur, F., Brébeuf
 Ménard, Alex., St. Michel des Saints
 Ménard, Nap., La Présentation
 Mercier, Jos., St. Odilon de Cranbourne
 Mercure, A., Drummondville
 Messier, Jos., St. Louis de Bonsecours
 Methot, Arthur, St. Antoine de Tilly
 Metts Lumber Co., Ltd., Price's Village
 Michaud, A., St. Fabien
 Michaud, Jos., St. Moïse Stn. (Co. Rimouski)
 Mignault & Cie., Moulin Mignault
 Millen, Wm., & Frère, Ahuntsic
 Miller, A. & M., Haldimand
 Miller Lumber Co., The, Waltham Station
 Millette & Frère, Lawrenceville
 Mirreault, Ernest, St. Côme
 Missionnaires du St. Esprit, Ironside
 Mitson, A. C., Magog
 Molloy, Felix, Grand Pabos
 Mongeon, Felix, Verchères
 Mont Laurier Sawmill, Mont Laurier
 Montgomery & Sons Co., New Richmond
 Montpetit, G., Coteau Station
 Monty, Adelard, Roxton Pond
 Moore, Richard, Wright
 Morency, Norbert, St. Tite des Caps
 Morien, Wilfred, St. Roch L'Achigan
 Morin, Arthur, St. Elzéar
 Morin, A., & Frère, St. George de Windsor
 Motin, Edouard, Ste. Claire
 Morin, Emile, St. Eleuthère
 Morin, Geo., Lac Weedon
 Morin, Jos., St. Cyprien
 Morin, L. P., & Fils, St. Hyacinthe
 Morin, P. Emile, South Stukely
 Morin, Théophile, Vallier Station
 Morneau, Chas., St. Donat
 Morneau, François, Ste. Perpétue de L'Islet
 Mornieu, Jos., Lac Beaumont
 Morrisette, Fortunat, Roberval Ouest
 Mul, Jno., Beech Greve
 Mur, P. T., Mayo

Nadeau, Honore, St. Jérôme de L'Isle
 Nadeau, Jos., St. Séverin de Beauvillage

QUÉBEC - Cont.

Nadeau, P., & Sons, Grand Cascapé Inn
 National Lumber Co., Ltd., Papineauville
 Naud, Albert, St. Alban
 Nault, Lausophe, Daveluyville
 Nelson, Thos., Wakefield
 Nihoul, Victor, Martinville
 Nicolet Falls Pulp & Lumber Co., The, Nicolet
 Falls
 Noël, L. O., St. Ferdinand
 Normand & Frères, St. Norbert d'Arthabaska
 Ouellet, Jos., & Cie, Trois Pistoles
 Ouellet, Thos., Ste. Hélène de Kamouraska
 Papillon, J. E., Portneuf Station
 Paquin, Jos. Emile, Deschambault
 Paradis, G. J., Lac au Saumon
 Paradis, J. Hubert, St. Narcisse
 Parent, Damase, St. Isidore
 Parent, Jos., Rivière Mokinak
 Parent, J. H., & Frère, Diégreville
 Parker, J. H., Dixville
 Payner, Alphonse, Leeds Village
 Pearson, P. Jos., Sweetisbury
 Pearson, Wm. A., Lacolle
 Petit, Geo., Lakefield
 Pejepscot Paper Co., Cookshire
 Pelland & Frères, Ste. Elizabeth
 Pelletier, Jos., St. Eugène
 Pelletier, Louis, St. Donat
 Peloquin, Achille, Ste. Rose de Watford
 Pepin, L., & Cie, Ste. Marguerite Terrebonne
 Pepin, Napoleon, Verdun, Montréal, (Miller & Ours)
 Pepin, Pierre, Minerv
 Perron, Alfred, St. Séverin de Beauvillage
 Perry, Jno., Stanbridge East
 Petit, H. H., Chicoutimi
 Phaneuf, A., St. Denis, River Richelieu
 Phelan, P. A., St. Columbin
 Phoenix & Berger, St. Ephrem d'Upton
 Picard, Alfred, St. Roch des Aulnaies
 Picard, Edmond, Ste. Louise
 Piché, Xavier, St. Basile de Portneuf
 Piet, Edouard, Stoke Centre
 Pineau, Alphonse, St. Amable
 Pineau, Jos., St. Amable
 Plamondon, Samuel, Stoneham
 Plante, Alexis, St. Alexis des Monts
 Plante, Jos., St. Malachie
 Plante, L., St. Gabriel de Rimouski
 Plante, Norbert, St. Frédéric, Beauce
 Plouffe, Jos. A., Lac des Écorces
 Plourde, Aug., Notre Dame du Lac
 Poirier, Azarie, St. Célestin
 Poirier Frères & Bellerose, St. Félix de Valois
 Poirier, Pantaleon, St. Célestin
 Poisson, J. B., Gentilly
 Poitras, J. N., St. Eugène
 Poitras, Jos., & Frère, St. Marcel
 Pomerleau, Chas., Ste. Marguerite de Dorchester
 Pope, F. M., & Son, Bury
 Potvin, Ovila, St. Cyrac
 Poche, Eugene, St. Martin, Beauce
 Poulin, Johnny, St. Ephrem de Tring
 Poulin, O., St. Michel de Bellechasse
 Price Bros. & Co., Quebec
 Provost, Chas., St. Ephrem de Tring
 Provost, F., Ste. Rose de Watford
 Quebec & St. Maurice Industrial Co., Lyster Stn.
 Quinn, B., & Co., Windsor Mills
 Rhault, Israel, Rivière Noire
 Rheault, Adolphe, St. Molke (Co. Matane.)
 Reheault, O., St. Valère de Bulstrode
 Richard, Thomas, Bouchette
 Richard & Co., Château Richer

QUEBEC—Con.

Richardson, J., Co., Lt.d., Matane
 Riendeau, Alex., Stanbridge East
 Rimouski, La Cie Industrielle de, Rimouski
 Riopel, Jos., Jr., & Emile de Montcalm
 Rioux, Cleophas, St. Eloï
 Rioux, Jos., Ruisseau Arbour
 Ritchie, David, St. Chrysostôme
 Rivard, Ludger, Matane
 Rivard, Ths., St. Didace
 River Ouelle Pulp & Lumber Co., St. Pacôme
 Rivest, Nap., Ste. Julianne
 Roberge, Elzear, Scotstown
 Robert, Louis, Jr., Warden
 Robidoux, Alfred, L'Annonciation
 Rodrique, Jno., St. Ephrem de Tring
 Rondeau, Adélaïd, St. Zenon
 Rossignol, Albert, Notre Dame de la Paix
 Rouillard, Napoléon, St. Leon de Standon
 Rousseau, Emile, La Trierville
 Rousseau, François, Léassaville
 Rousseau, Geo., Robertonville
 Rousseau, J. A., Ste. Anne de la Perade
 Roy, Arthur, St. Philémon
 Roy, Gédéon, La Durantay
 Roy, Jos., Rivière Blanche
 Roy, Léon, St. Samuel de Gayhurst
 Roy, Victor, St. Jude
 Ruel, Edouard, St. Romain

Saguenay Lumber Co., Les Escoumins
 St. Amand, L., St. Moïse
 St. Amant, A., St. Théle
 St. Côme, Compagnie Industrielle, St. Côme
 St. Didace, Compagnie Industrielle, St. Didace
 St. François Lumber Co., Petit Saguenay
 St. François Regis, Les Frères de Peribonka
 St. Gabriel Lumber Co., St. Gabriel de Brandon
 St. Gelais, Francois, Grosses Roches
 St. Lawrence Pulp & Lumber Corp., Ltd., Chandler
 St. Onge, Jos., Ste. Ursule
 St. Pierre, Fortunat, La Martine
 St. Pierre, Jos., St. Albert L'Islet
 St. Pierre, Jos., St. Pierre Baptiste
 St. Pierre, La Cie de Laiterie, St. Pierre, Montmagny
 St. Raymond Lumber & Pulpwood Co., St. Raymond
 St. Simeon Lumber Co., The, Doreil
 Sanitary Plumbing Mig. Co., Graaby
 Sauvageau, O., Grondines
 Savoie & Cie, Manscau
 Schoen, F. C., Ladysmith
 Scierie Ste. Agathe des Monts, Ltd., Ste. Agathe des Monts
 Scotstown Sawmill Co., Scotstown
 Seale, J. A., Johnville
 Senecal & Quidor, Ste. Thérèse de Blainville
 Sheppard, Jas., & Son, Sorel
 Sherbrooke Lumber Co., Barachois de Malbaie
 Silver Lake Lumber Co., Eastman
 Simard, F., St. Férol
 Sirois, Jos., St. Alexandre
 Smith, Marvin, & Co., Upper Bedford
 Smith Bros., Campbell's Bay
 Stag Creek Lumber Co., Low
 Standard Box Co., Lennoxville
 Starrak, J. A., New Richmond
 Strong, G. M., Val Barrette
 Strong, M. J., Cambria
 Sulley, R. N., & Son, Venosta
 Sylvestre, Amédé & Geo., St. Charles de Mandeville
 Sylvestre, J. C., Panet

Talbot, D., Wolfstown
 Tanguay, A., Weedon Stn.
 Tanguay, P., Langevin
 Tanguay, Phileas, St. Justine

QUEBEC—Con.

Tardif, Louis, St. Victor Sta.
 Taylor, Thos. J., Cumberland Mills
 Tétu, Thos., Moulin Tétu
 Theriault & Freres, St. Alphonse
 Therriault, Jos., St. Pacôme
 Thibault, A., & Fils, Walker's Cutting
 Thibault, Desire, & Son, East Hereford
 Thibault, Jos., Montmagny
 Thomas, Eustache, St. Rémi d'Amherst
 Thompson, G. N., Sutton
 Thomson, W., & Sons, Thurso
 Titus, Herman L., Dunkin
 Tobin Mig. Co., Ltd., Bromptonville
 Tourville Lumber Mills Co., Montréal
 Towne Bros., Sydenham Place
 Tozer, Jared, & Bros., Bonaventure River
 Trappist Fathers, The, La Trappe
 Travers, R. P., St. Godfrey
 Tremblay, Alex., & Son, Duhamel
 Tremblay, Jos., Ste. Anne Chicoutimi
 Tremblay, Jos., Ste. Félicité
 Tremblay, Meron, Petit Saguenay
 Tremblay, Paschal & Edmond, Les Eboulements
 Tremblay, Thos., Ste. Marie de Charlevois
 Tremblay, Wm., Peribonka
 Trois Pistoles Pulp & Lumber Co., Ltd., Riviére Trois Pistoles
 Trottier, Alfred, Rivière Bois Clair
 Trudel, Jno., Bulstrode
 Tulley, J. R., Anderson's Corner
 Turcotte, E. A., Val Racine
 Turcotte, Endore, West Broughton
 Turcotte, Ferdinand, Panet
 Turgeon, N. T., Beauceville
 Turgeon, N. T., & Cie Bie (Rimouski Co.)
 Turner Lumber & Pulpwood Co., Lake Edward

Vachon, J. Linière, St. Joseph de Beauce
 Valiquette, J., Nominingué
 Vallée, Arthur, St. Luder, Lac Mégantic
 Vallée, Evangeliste, St. Benoit Labre
 Vallée, Olivier, Lorrainville
 Valois, Jos., Causapscal
 Vachet, A., Fabre
 Verreault, Eustache, Petits Mechins
 Villemaire, J., Mont Laurier
 Vincent, J. A., Actonvale
 Vivian, Mrs. Richard, St. Odilon de Cranbourne

Warcup, J. J., Leamster

Way, F. W., Rawdon
 Wayagamack Pulp & Paper Co., Three Rivers
 Wilson, W. A., Danford Lake
 Wyatt, N. J., Farnam's Corner

NEW BRUNSWICK.

Albert Lumber Co., Ltd., The, Albert
 Anderson, Jas. W. & J., Burnt Church
 Anderson, Jas., & Sons, Upper Dorchester

Babbitt, T. D., Lumber Co., St. Mary's Ferry
 Bartlett, Ed. N., Bartlett Mills
 Bartlett, Jessie, Bartlett Mills
 Bateman, Arthur, Shediac Cape
 Bell, E. W., Stickney
 Bentley, A. F., & Son, Ltd., St. Martin's
 Billings & Fleming, Elmwood (Carleton Co.)
 Black, J. L., & Sons, Sackville
 Briggs, C. F., Oakville
 Brown, C. A., Salisbury
 Burchill, Geo., & Sons, South Nelson
 Burpee, G. F., Avondale
 Burtt, Elwood, Burtt's Corner (Mill at Keswick Stream)

Cail, T. W., & Sons, Smith's Corner
 Cameron, Fred., Fawcett Hill (West. Co.)

NEW BRUNSWICK—Con.

Campbell, Burton S., Flume Ridge
 Carnworth, W. J., Riverside
 Carwell Bros., Lakeville
 Chapman, A. E., Janeville
 Clark & Craig, Hartland
 Clarke, Byron T., Hibernia (Queen's Co.)
 Continental Lumber Co., The, River Charlo
 Cormier, Wilfred, East Rogerville
 Corriveau, Geo., Caron Brook
 Couturier, Didier, St. Jacques
 Crandall, A. E., Nerepis
 Craddall, Harrison & Co., Newcastle
 Cronkhite, Henry A., Lower Southampton
 Culligan, J. A., Culligan
 *Dalheusie Lumber Co., Dalhousie
 DesBrisay, Sydney, Petit Rocher
 Doten, O. B., Oak Bay and Moore's Mills
 Douglas, Stanley, Stanley, also Cross Creek
 Duffy, Jas., North Renous
 Dumas, J. W., Grande-Anse
 Dunham Bros., Campbell Settlement

Edgar, C. C., Three Brooks
 Eureka Lumber Co., Burnsville

Fenderson, Jno., & Co., Head Office at
 Sayabec, Que.
 Fleming & Gibson, Ltd., Woodstock
 Flewelling, G. & G., Co., Ltd., Hampton
 Fowler & Fownes, Sussex, also Glen Titus
 Fowlie, George, Little Branch
 Fraser Lumber Co., Ltd., Plaster Rock

Gaudet, S. R., Memramcook West
 Gilman Bros. & Borden, Pokiok
 Gilmore, G. W., Glassville
 Gloucester Lumber & Trading Co., Bathurst
 Graham, Ernest, Moore's Mills
 Grant, J. F., Grandview
 Green, J. B., Tabucintac

Haché, David, St. Isidore
 Hachev, P. P., Upper Caraquet
 Haley & Son, St. Stephen
 Hansom, Douglas A., Tilley
 Hayden, J. A., Woodstock
 Hayes, I. C., Beechwood
 Hickman, C. S., Harcourt, also Dorchester
 Hilyard Bros., St. John
 Holmes, Jas. H., Doaktown
 Humphreys, J. E., Petitecodiac

Irving, J. D., Buctouche

Jagoe, Ellis, Clifton
 Jeffrey, N., Sussex Corner
 Jones Bros., Apohaqui
 Jones, Trueman, River Glade
 Jordan, Jno. T., Lower Queensbury

Kaye, W. W., Sackville
 Keenan, Jno., Salisbury
 Killam, I. N., Killam's Mills

Langis, T., St. Anthony
 Lea, Paul, Co., Ltd., Moncton
 LeBlanc, Desithe, St. Louis
 Leger, L. M., St. Anthony
 Little, Delbert, York Mills
 Lockhart, C. E., & Co., Notre Dame
 Lockhart, C. R., Bristol
 Lockhart, L. D., Moncton
 Loggie, A. & R., Chatham
 Louison Lumber Co., Ltd., The, Jacquet River
 (Hd. Office, Springfield, Mass.)
 Lynch, T., & Co., Ltd., Nelson Reserve

NEW BRUNSWICK—Con.

McAuley, Jno. E., Lower Millstream, (also Belle Isle)
 McTann Bros., Rollingdam
 McCurdie, Albert, Belledune
 McElroy & Murchie, Grafton
 McFarlane, Chipman, Catamount
 McKnight, R. T., Marrott
 McMullan, Charles, Stanley, also Ryan Brook
 McMullan, Co., Ltd., Dereham Centre, also Jacquet River
 McMullan, Jas., Bocabec
 McNair Lumber Co., Wapske, (Mill at Leeford)
 McNutt, Samuel T., Tay Settlement
 McWilliams, Thos., Ford's Mills
 Mahoney, P. G., Melrose
 Martin & Violette, St. Leonard's
 Mayes, Arthur L., Queenstown
 Michaud, J. E., Anderson Siding
 Michaud, T., St. Leonard Station
 Miller Bros., Tracey's Mills
 Miller, Charles, St. John, Pok'lok
 Miller, R. J., Black Land
 Miller, W. P., Newcastle Bridge
 Moore, B. L., Moore's Mills
 Moore, Robert L., Mechanics' Settlement
 Morrison, Jno. A., Fredericton
 Mosher, J. P., Chance Harbour
 Mowat, B. A., Campbellton
 Murchie's, Jas., Sons Co., Benton
 Murphy, M. E., Sorrel Ridge
 Murray & Gregory, Ltd., St. John

Nadeau, Ernest, St. Leonard

O'Regan, Jno., Burnt Land Brook

Parker, Jno., Hillsborough
 Peck & Smith, Hillsborough
 Pelletier, Nelson, Parents
 Peters, Fred. S., Peter's Mills
 Pinder, Jas. K., Pinder
 Pinet, Wm. A., Burnsville
 Prescott, Joshua, & Sons, Goose Creek
 Price, Hanford, Havelock
 Price & Steves, Hartland

Randolph & Baker, Ltd., Randolph
 Rayworth Bros., Upper Cape
 Richard, Pierre L., St. Charles
 Richards Mig. Co., Ltd., Campbellton
 River Valley Lumber Co., Oromocto
 Robinson, J. S., Cambridge
 Runabout Lumber Co., Ltd., Argyle
 Roy, N. H., (Estate of), Elm Tree
 Russell, Jas., Lower Newcastle

Sadler, F. D., Rowena
 Sanson, Edwin, Cross Creek
 Sayre & Holly Lumber Co., Ltd., Briggs Corners,
 (also Chipman)
 Seely, G. T., & Son, Round Hill
 Sherwood, E. G., Pennfield Ridge
 Shives Lumber Co., Ltd., Campbellton, (also Athol)
 Smith, B. F., Florenceville East
 Smith, L. B., Central Blissville
 Smith, Maynard, Tete à Gauche
 Smith Bros., Millstream
 Smith Lumber Co., Woodstock
 Smith, Perley & Co., Woodstock
 Smith, Estate of E. J., Shediac
 Snowball, J. B., & Co., Ltd., Chatham
 Soper, Geo. W., & Sons, Head of Millstream
 Steeves, J. W., Hillsborough
 Stetson, Cutler & Co., St. John
 Sullivan, D. & Sons, Red Bank
 Swan, H. T., Tweedside

NEW BRUNSWICK—*Cont.*

Swedish Canadian Lumber Co., The, Richibucto
 Tait, R. C., Shediae
 Thériault, G. J., Iroquois
 Thompson, Arthur W., Upper Sackville
 Turner, Walter, Port Elgin
 Turner Bros., Hillsborough
 Upham Lumber Co., Woodstock (Mill at Odell River)
 Verret, Jos., Green River Sta. (also Verret)
 Wanamaker Bros., Nauwigewauk
 Wapskehegan Lumber Co., Ltd., Wapske, Victoria Co.
 Warner, J. R., & Co., St. John
 Warren, J. L., South Branch St., Nicholas River
 Watson, Alex., St. John (also Belleisle)
 Welch, M., (Estate of), Foreston
 West, Alfred, Cole's Island
 Weston, R. H., & Co., Gagetown
 White, Chas. T., & Son, Ltd., St. John
 White, S. H., Co., Ltd., Sussex
 White & Patterson, St. Martin's (also S. George)
 Wiggins, Ed., Wiggins' Mills
 Wilson, W. F., Hillsborough
 Wilson Box Co., Ltd., St. John
 Winton, John, Archibald Settlement
 Wood, Albert, Coverdale
 Wood, E. E., Baie Verte
 Woods, Wm. F., Armstrong Corner
 Woodman, A. E., Rossville
 Woods, H. W., Welsford
 Wright, Morrison, Stony Creek

York & Sunbury Mfg. Co., L., Gibson

NOVA SCOTIA

Adamson, Frank, Sundridge
 Allen, A. W., & Son, Middleton
 Allen, G. F., & Co., Brazil Lake
 Anderson, Barnaby, Dalhousie Lake
 Anderson, George, & Son, Toney Mills
 Archibald, Sidney, Upper Musquodoboit
 Archibald & Sutherland, Denver
 Archibald Mill Co., The, New Town
 Ashton, Clarence E., Ecum Secum
 Atlantic Lumber Co., Ltd., South Maidland
 Bailey, Daniel M., The Falls
 Banks, Edmond H., Torbrook
 Barkhouse, E. D., & Bros., Port Dufferin
 Barnhill, B. B., Two Rivers
 Barrie, D., & Sons, Auld's Cove
 Barry, A. D., Pietou
 Bayer Bros., Meagher's Grant
 Baxter, R. M., Belmont
 Belliveau & Leblanc, Church Point
 Bigney, W. Fletcher, Welsford
 Blaikie Bros. & Co., Upper Stewiacke
 Bochner Bros., West LaHave
 Bonnet Bros., Falagar
 Boutilier, Duphinee & Co., French Village
 Bower, Andrew, & Sons, Shelburne
 Bower, George, Lower Ohio
 Bower, John L., Jordan Falls
 Bower, Thos. & Fred., Ohio
 Bower, T. H., & Sons, Lower Ohio
 Bower Bros., Shelburne
 Bowles, Henry B., Cambridge Station
 Boylan, Patrick, & Son, New Ross
 Broughton & Rubble, Westchester Station
 Brown, H. W., Brown's Brook
 Brown, J. P., & Son, "l Shore
 Brown, Victor E., East Southampton
 Brum Wm., West Northfield

NOVA SCOTIA—*Cont.*

Bruhm Bros., New Cornwall
 Bullivant, Jos. N., Windsor
 Burnett, John, Upper Musquodoboit
 Byers, Wm., West New Annan
 Calhoun, T. B., Calhoun P.O.
 Cameron, John K., St. Mary's
 Cameron, W. H., Stellarton
 Campbell, Archie, Glencoe
 Campbell, John B., & Son, Clarksville (also Dodridge)
 Campbell, R. J., East Bay
 Campbell Bros., Hunter's Mountain
 Campbell Lumber Co., Ltd., Weymouth
 Cann, Samuel N., & Crosby, Aaa, South Ohio
 Carey, George W., East Margaretsville
 Carrigan, D., & Son, Donny Brook
 Carter, Rufus, Southampton
 Chaplin, Ernest W., Upper Musquodoboit
 Chapman, Hiram, Joseph & Robert, Chapman Settlement
 Chapman, Howard, & Sons, Leicester
 Chapman, J. J., Northport
 Chappell Bros. & Co., Ltd., Sydney
 Christie, J. R. & G. H., River Hebert
 Churchill, F. E., Darling's Lake (Yarmouth Co.)
 Churchill, Walter, Brooklyn
 Clarke Bros., Bear River
 Clyde River Pulp & Paper Co., Clyde River
 Comeau, E. M., Meteghan
 Comeau, Moses J., Comeauville
 Comeau, Simeon A., Concession
 Conrod, Peter, Head Chezzetcoock
 Cook, Caleb, Pleasant Valley
 Cook, G. T., Cook's Brook
 Cook, Hiram, First South
 Corkum, Silas, Windsor Road
 Creelman, J., Little Bass River
 Crocker, J. A., Pleasant Lake
 Crooks, Fritz J., Halifax
 Crosby, Howard A., Carleton
 Crosby, Judson, Gardner's Mills
 Crouse, George W., Crouse Town
 Crowdis, J. J., North East Margaree
 Crowe, C. E., Lumber Co., Brooklyn
 Crowley Bros., Street's Ridge
 Cummings, John A., Goshen
 Cunningham, Ford & Son, McLellan's Brook
 Dakin, F. R., Pugwash
 Dares, George, Rhode's Corner
 Davison Lumber Co., Ltd., Bridgewater
 De Long, Elbridge, Kempt
 De Long, Everett, Kempt
 Deveau, Benj. J., Meteghan
 Dickie, Rufus E., Tangier
 Dominion Coal Co., Springhill
 Douglas Lumbering Co., The, Caledonia
 Doyle, Edward, Whiteside
 Doyle, John, Westchester
 Dryden, W. E., East Bay, C.B.
 Dumphy, Wm., Pondville
 Durkee, Norman P., Pleasant Valley Corner
 Eastern Lumber Co., Ltd., Halifax
 Eisenhauer, Clifford, Hammond's Plains
 Elderkin, H., & Co., Port Greville
 Elliott Bros., New Ross
 Elmsdale Brick & Tile Co., Ltd., Elmsdale
 Ernest Bros., Preston
 Faltenhine & Baker, Chester
 Feener, M. & S., Farmington
 Ferguson, Alexander, Cleveland
 Ferguson, Daniel A., New Boston
 Fisher, Isaac, Fisher's Mill
 Fitzgerald Bros., Dingwall
 Forbes, J. A., Great Village

NOVA SCOTIA—Con.

Fownes, A. W., Mira Gut
 Fownes, Chas. A., River Dennis
 Fox River Lumber Co., Fox River
 Fraser, Jas. A., Guysborough
 Fraser, John J., Whycocomagh
 Freeman, Avery C., South Brookfield
 Freeman, J. Parker, Greenfield
 Freeman Bros., Sable River
 Frerice & Thompson, Upper Nine Mile River.
 Fulton, Scott, Beaver Brook

Gibson, Devany & Gibson, Dalhousie West
 Giddens, W. Ward, Londonderry Station
 Graham, J. E., Nine Mile River (Hants Co.)
 Graham & Nicholl, Carleton
 Grand River Pulp & Lumber Co., Halifax
 Grant, Jas., & Sons, Tracadie Road
 Green, John James, Green's Brook
 Grimm, D., First South
 Gunn, A. G., & Son, East River (St. Mary's)

Haley & Crosby, Deerfield
 Hallamore Bros., New Cornwall
 Halliday, Douglas, Westchester Valley
 Hantsport Fruit Basket Co., Hantsport
 Harlow, Hugh, Sable River
 Harlow & Freeman, Sable River
 Harnish, Chas. A., Greywood
 Harnish, H. C., Springfield
 Hart, H. McC., Halifax
 Hart, John, Waterville (Hants Co.)
 Hartlen, C. W., Milton
 Haskins, Ernest M., Milton
 Hattie, W. H., Sunnybrae
 Hattie Bros., Caledonia
 Hayes, Wm., Argyle Head
 Hebb, Arthur, & Sons, Waterville
 Hennigar, Jno. W., Noel
 Honeyberry, Joseph, Chester
 Hicks, J. H., & Sons, Bridgewater
 Higgins, George, South Vale (Stewiacke)
 Higgins, T. H., MacLean
 Hill, Dan., St. Peter's
 Hiltz, D. & E., Forties, New Ross
 Hubert, J. G., North Lochaber
 Humes, Daniel, St. Patrick's Channel

Intercolonial Coal Mining Co., Westville
 Irving, John J., Lorne (Pictou Co.)

Jeffers Mfg. Co., Ltd., Parrsboro
 Jodrey, John, Shubenacadie (or Lake Egmont)
 Johnston, H. A., West New Annan
 Jones & Whitman, Ltd., Annapolis Royal

Keddy, W., Milton (Queen's Co.)
 Kedy, J. A., Mahone Bay
 Kelly Bros., Head River Hebert
 Kennedy Bros., West Alba
 Kerr, G., Fox River
 Kerr Bros., Milford
 Keyes & Isenor, Elmsdale
 King, George, River Philip
 King, Willard, Oxford
 King Bros., Oxford
 Kirk, D. G., Antigonish Town
 Knowlton, E. W., Cambridge Station

Langille, Henry, & Co., South Ohio
 Lantz, G. W., Tupperville
 Lantz, Isanc F., New Ross
 Lantz, Patton, New Ross
 Leslie Bros., Port Mouton
 Lewis & Starritt, Bass River
 Lloyd, H., & Son, Waterville
 Logan, J. W., Earltown
 Longmire, Bernard, Hillsburn

NOVA SCOTIA—Con.

Lowe, John W., & Son, Ltd., Brooklyn (Queen's Co.)

McArthur, A. R., Victoria
 McClearn Co., Ltd., The, Liverpool
 McDonald, Daniel, North Side Little Narrows
 McDonald, D. B., River Dennis
 McDonald, James D., Margaree
 McDonald, John L., Bay View (Pictou P.O.)
 McDorman, G. H., Debert Station
 McElmon, E. B., Ondow
 McElmon, E. H., Dartmouth
 McElmon Bros., East Leicester
 McGill, Joseph, Shelburne
 McGregor, J. D. & P. A., New Glasgow
 McIntosh, D. A., Blue Mount
 McIntyre, P. J., River Dennis
 McIvor & Kelly, River Hebert
 McKay, A., Baddock Bridge
 McKay, Andrew, Lorne (Pictou Co.)
 McKay, D., Whycocomagh
 McKay, Peter, Bay View
 McKay, Robt. A., River John
 McKay, Thos., Earltown
 McLean & Son, Cross Roads
 McKeen, Norman, Aspen
 McKenzie, Alex. K., Port Hood
 McKenzie, Arch., River John
 McKenzie, Colin, Victoria
 McKenzie, Wm., Earltown
 McKiggan, D. J., McNab's Cove
 McLean, Duncan D., Bailey's Brook
 McLennan, A., River Dennis
 McLeod, A. R., L'Ardoise
 McLeod, John D., Loch Lomond
 MacLeod Pulp Co., Ltd., Milton
 McNeil, Arch. A., Millville
 McNeil Bros., Windsor Forks
 McPherson, C. A., Conn's Mills
 McRae, Roderick, West Bay
 Maritime Lumber Co., Ltd., Halifax
 Marks, Edward A., Ship Harbor
 Marks, John M., Ship Harbor
 Marsh, L., C. Economy
 Marshall, H. H., Digby
 Martin, Lyle & Wm., East Jordan
 Matheson, George J., L'Archeveque
 Matheson, John D., Hopewell (Pictou Co.)
 Mattinson, B. N., Pugwash
 Merry, Simon D., Maitland
 Millard, John, Liverpool
 Miller, Lewis, & Co., Ingram Port
 Miller & McPherson, Waverley or Fall River
 Millett, Henry, Martock
 Milne, H. M., Petpeswick Harbour
 Minard, L. H., Milton
 Minasville Lumber Co., Minasville
 Mitchell, John, River John
 Mitchell, John G., Oyster Ponds
 Mitchell Milling Co., The, Denver
 Mois, Ltd., Halifax
 Monk, G. L., Ship Harbor
 Morrison, Jas. F., Thorne's Cove
 Morrison, John S., Hansford
 Morrison, Neil, Loch Lomond West
 Morton, Bennett & Joseph, Cherryfield
 Murdy, Lewis, Murchyville
 Murphy, Geo. H., New Salem
 Murphy, Thos., Emerald
 Myers, Peter, & Son, Head of Jeddore

Necum Touch Lumber Co., Necum Touch
 Nelson, Albert, Shubenacadie
 Newville Lumber Co., Newville
 Nickerson, David, Brooklyn
 Nicol, Frank G., Clyde River
 Nix, Henry, Collingwood Corner

NOVA SCOTIA—Con.

North River Lumber Co., Murray
 Nova Scotia Steel & Coal Co., Ltd., Sunnybrae
 Palmer, Hanley, Stanley (Hants Co.)
 Parker-Eakins Co., Ltd., Meteghan River
 Patterson, H. B., Pembroke
 Patterson, R. W., & Son, South Alton
 Perreault, Peter, New France
 Pearl Lake Mill Co., Kemptville (Yarmouth Co.)
 Phelan, J. R., Mill Village
 Phinney, W. L., South Farmington
 Pineo, W. W., Waterville
 Porter, D., & Son, Westville
 Porter, John B., Belleville (Yarmouth Co.)
 Prosser, Maurice, Kemptville
 Pugley, J. L., Portapique (also Five Islands)
 Purdy, J. C., Amherst
 Purdy Thos. W., Millvale (Also Jackson)
 Pye, W. T., & Co., Ecum Secum Bridge
 Refuse, W. H., New Ross
 Ramsay, G. & S., West St. Andrews
 Ramsay, Wm., Dalhousie West
 Ramsey, Jas. W., Perrette
 Ramsey, Jas. W., Wittenburg
 Redden, Chalmers R., Kentville
 Reeves, C. & J., Springfield
 Reid, L. R., Lower Stewiacke
 Reid, Wm., Wallace
 Rhodenizer, T. U., Parkdale
 Rhodes Curry & Co., Little Forks
 Rice, B. H. A., Bear River
 Ripley Bros., River Philip
 Ritby, Jas. A., Musquodoboit Harbor
 Riversdale Milling Co., Riversdale (Lunenburg Co.)
 Roach, Raymond, Eastern Harbour
 Robichaud, E. J., Meteghan Centre
 Robichaud, Philomen L., Maxwelton
 Robinson, Hedley, Brookfield
 Robinson, Wright & Co., Ltd., Sand River
 Rodgers, C. S., Nictaux Centre
 Rogers Bros., Rose P.O. (Westchester)
 Root & McGregor, New Glasgow
 Ross Bros., Glengig
 Rowlings, Geo., & Sons, Musquodoboit Harbour
 Rutledge, R., Sheet Harbour
 Sabean, C. F., New Tusket
 Sable Lumber Co., Ltd., Wilkins' Siding
 St. Croix Lumber Co., Ltd., Hartville
 Sanford, Wilson, Billtown
 Scotia Lumber & Shipping Co., Ltd., Sherbrooke
 Scott, Thos., & Sons, Barrington
 Shatford H. & L., Milcove
 Simpson, Burton J., Manchester
 Sitman, Chas., Ship Harbour
 Sisiboo Planning Mill, Weymouth Bridge
 Smith, Alex. J., Grand River (Richmond Co.)
 Smith, Ben. H., Shinimucas Bridge
 Smith, George, Shinimucas Bridge
 Smith, John W., Bridgewater
 Smith, Motley, Fort Lawrence
 Smith, Nathaniel, Harmony
 Soley, R. P., L. Economy
 Specht Bros., Barton
 Spicer, Eurias, Spencer's Island
 Spicer, John N., Spencer's Island
 Springhill Lumber Co., Ltd., Amherst
 Stanford, John, Chester
 Steele & Huntly, Scott's Bay
 Stephen Bros., Windsor Junction
 Stephens, Wm. F., Tenecape
 Stewart, C. P., Little Harbour
 Stewart Bros., Jackson
 Stonehouse, Herbert K., Springhill
 Stonehouse, W. L. & A. C., Collingwood Corner
 Sullivan, T. O., Milton

NOVA SCOTIA—Con.

Sutherland, Allan A., Riverdale
 Sutherland, Robert, & Sons, Clyde River
 Sutherland Bros., Denmark
 Sylinan Mill, The, Milton
 Taylor, Alex., & Sons, Brooklyn
 Taylor, Frank H., Chaswood (Halifax Co.)
 Taylor Bros., Wittenburg
 Telfer Bros. Woodworking Co., Ltd., Bridge-water
 Tompkins, Jas., Emerald
 Tupper, A. C., & Son, Scott's Bay
 Tupper, Elias, Chester Basin or Bridgewater
 Veinot, L. R., New Albany
 Veinot, W., New Germany
 Waggoner, Geo., & Sons, Danvers (Digby Co.)
 Wagstaff, John H., Round Hill
 Walls, Geo. & R., Allendale (Shelburne Co.)
 Ward, Wm. E., North Alton
 Warne, H. T., Hill Grove
 Webber, Amos, Jeddore
 Webber, Arthur, Jeddore
 Webster, W. H., McLellan's Mountain
 Weir, John, Pine Tree
 Wener, L., Westville
 Wentzell Milling Co., Wentzell's Lake
 West, George, Morristown
 Whalen, Wellington, Chester Grant
 Williams Bros., Barney River
 Wood, John W., Cold Brook Station
 Woodworth, A., Milford Station
 Woodworth, Bruce E., Berwick
 Young, Alex., Millsville
 Zwicker, Ed., & Sons, Northfield and Brookfield
 Zwicker, P. B., New Cornwall

PRINCE EDWARD ISLAND.

Acorn, Seaforth Mack, Pownal
 Affleck, H. S., Bedeque
 Anderson, Murdoch G., Newton Cross
 Annandale Lumbering Co., Annandale
 Bagnall, J. C. Pope, Hazel Grove
 Callaghan, Peter W., Dromore West
 Cannon, Jos., Ellerslie
 Collins, Daniel, Sturgeon Bay
 Craswell, Jno. H., Clyde Station
 Creamer, Bernard, Souris
 Dixon Bros., Breadalbane
 Hancock, Jno., & Sons, Wood Islands
 Hickox, S., Cornwall
 Ives, Chas. W., North Tryon
 Ives, Geo., North Tryon
 Johnson, W. E., Elmsdale
 Klondyke Lumber Mills, Souris
 Leard, Geo. E., & Son, Crapaud
 Leard, Samuel J., Mt. Stewart, R.R. No. 3
 Lewis, Daniel, St. Peters
 McCull, Anthony A., Ellerslie
 McEwen, W. H., Bristol
 McKinnon, Angus, Coleman
 McLean, Alex. J., Head of Montague Mills
 McMillan, Geo., Alberry Plains
 McNally, Jas., Egmont Bay
 McPherson, A. M., Clarkstown

PRINCE EDWARD ISLAND—Con.

McVane, Stanley, Bothwell
 Marchbanks, David, Alma, Lot 3
 Montague Sash & Door Factory, Montague
 Morson, A. S., Upton
 Munn, Geo., Mermaid
 Murphy, Andrew, Kensington, R. R. No. 4

Palmer, Jno. D., (Estate of), Freeland
 Perry, Jno. F., Muddy Creek
 Peters, Bruno, St. Louis
 Poole, C. Herbert, Lower Montague

Rose, S. J., Lakeville
 Ross, Geo. W., Bridgetown

Scott, Jno. F., Clyde River
 Stewart, Everett, Vernon River
 Sutherland, W. G., Montague Bridge

Warren, C. H., & Son, Elliott's Corners
 Warren, Ernest E., North Grove
 Warren, Wellington, Norborough
 Wright, Geo., M., Central Bedeque
 Wright, R. Theo., Campbellton

MANITOBA.

Barker, W., Glenella
 Bengtson, C. E., Scandinavia
 Burnell, Oscar, Arkabka
 Burrows, T. A., Grandview
 Butson, Wm. F., Birch River

Canadian Bank of Commerce, Mafeking
 Canon Lake Lumber Co., Ltd., Winnipeg (Mill in Ontario)
 Caverly & Sons, Bowman River
 Cockerill & Son, Merridale

Finger Lumber Co., Ltd., The Pas
 Finanson, S., Vidor
 Forsyth, D., Sandy Lake

Great West Lumber Co., Winnipeg (Mills at Greenbush, Sask.)

Hall, Eric, Scandinavia
 Hammersley Bros., Birnie
 Harlow, J. H., Rosedale
 Hawkins, J. A., Kenville
 Heale Bros., Kreuzburg
 Hemmingston, J., Scandinavia
 Herron, H., Bowman River

Kenny, Wm. J., Garson
 Kenderman, G., Cromwell
 Kippian, Alex., Elphinstone

Leary, J. G., Leary
 Loewen Bros., Steinbach

McClure, J. H., Kreuzburg
 McGillivray, Jas. G., Norgate
 McKinney, F. V., Turtle Mountain, Boissevain
 McKinnon, Alex., McCreary
 McNab, W. A., Bowman River
 Maguire, Amos, Duck Mountain
 Mason, Jas., & Sons, Riding Mountain
 Morris, Frank, Gilbert Plains
 Mutchenbacker Bros., Mafeking

Northern Construction Co., Ltd., Winnipeg, (Mill at Ft. Frances, Ont.)

Papineau, Jno., & Son, St. George
 Parkerson, W., Birch River
 Paull, Geo., Swan River

MANITOBA—Con.

Peden, Wm., Rosedale
 Pressman, A., Camper

*Rat Portage Lumber Co., Winnipeg
 Red Deer Lumber Co., Winnipeg Mills in Saskatchewan
 Robanson, Wm., Co., Ltd., Seikirk
 Rutley, Jas., Ochre River

Skillan, Wm., Rosewood
 Smith & Acres, Steinbach
 Sonemburg, August, Metzger
 Standard Lumber Co. of Manitoba, Ltd., Winnipegosis

Thomas, Mrs. M. J., Pleasant Home
 Thorvaldson & Sigurdsson, Icelandic River
 Triwoochka, G., Mountain Road

Watson, Jno. J., Danvers
 Williams, W. J. F., Fork River
 Wilson, R. B., Dugald

SASKATCHEWAN.

Albert, J. B., Prince Albert

*Big River Lumber Co., Big River
 Blackburn, H., Bannock

Given Bros. Lumber Co., Cecil
 Great West Lumber Co., Greenbush (Head Office Winnipeg)

Hendrickson, Lars, (Fort à la Corne) Kinistino

Joyce & McKechnie, Star City

MacDonald, Jack, Canwood
 Madon Bros., St. Walburg
 Meier, Henry, Ravine Bank

Nugent, Andrew, Steep Creek

Otte, Jos., Shellbrook

Pearse & Edworthy, Pusane
 *Prince Albert Lumber Co., Prince Albert
 Pring, John, Crooked River

*Red Deer Lumber Co., Burrows (Head Office Winnipeg)
 Ruby Lake Lumber Co., Ruby Lake

Saskatchewan Lumber Co., Ltd., Crooked River
 Saskatoon Lumber Co., Saskatoon
 Shaw, Chas., Pleasant Valley
 Smythe's Lumber Mills, Aveybury

Trombley, H., Crystal Springs
 Turnbull & Barnum, Crooked River

ALBERTA.

Athabasca Lumber & Supply Co., Ltd., Athabasca

Bailey Bros., Mountain House
 Beaver Creek Lumber Co., Beaver Mines
 Bibby, Isaac, Pine Creek
 Brightman Bros. & Wilson, Mountain House

Canadian Pacific Railway Co., Dept. of Natural Resources, Calgary
 Carbondale Lumber Co., Coleman
 Card, J. A., & Sons, Leslieville

FORESTRY BRANCH BULLETIN No. 52.

ALBERTA—Con.

Clemes, H., & Son, Barrhead
 Cornwall & Gauthier, Athabasca
 Cummings, Geo., Wittenburg
 De Mille, Vernon N., Priddis
 Dent, W. J., Thorshay
 Eau Claire & Bow River Lumber Co., Ltd., Calgary
 Edmonton Lumber Co., Ltd., Edmonton
 Featherstonhaugh & McLeillan, Fort Saskatchewan
 Featherston & Mason, Nanton
 Gilgate, Wm., Wellsdale
 foothills Lumber Co., Claresholm
 Fraser, D. R., & Co., Ltd., Edmonton
 Gagnon, Isaac, Athabasca
 Hagen, N. T., Sundre
 Johannesson, J. T., & Sons, Bergen
 Lineham Lumber Co., Ltd., High River
 McDougal & Martins, Leslieville
 McInroy, Jas., Innisfail
 McLaren Lumber Co., Blairmore
 McPherson Bros. Lumber Co., Bentley
 Marler, S. A., & Son, Clover Bar
 Northwest Lumber Co., Ltd., Mulhurst Mill at
 Pigeon Lake)

Pelletier Lumber Co., Coleman
 Pettepher, F. R., Stauffer
 Potter & Boquette, Three Hills
 Rudway, O. S., Myrtle Creek
 Reed & Son, Rimley
 Richards Bros. Co., Morley
 Scheideman Co., Mewassin
 Smith, A. W., Paddle River
 Stone, A., Stone's Corners
 Strawberry Sawmill Co., Stone's Corners

Valley Lumber Co., Leslieville
 Walter, Jno., Limited, Edmonton
 Zaczkowski, Jno., Westlock

BRITISH COLUMBIA.

Abbotsford Timber & Trading Co., Ltd., Abbotsford
 Abernethy & Lougheed, Port Haney
 *Adams River Lumber Co., Chase
 Adolph Lumber Co., Baynes Lake
 Alert Bay Sawmill Co., Alert Bay
 Allison, A. P., & Co., Rivers Inlet
 Alberta Lumber Co., Vancouver (Mills at False Creek)
 Angevine Lumber Co., Silverdale
 Arlington Shingle Co., Arlington Stn., Nanoose Bay
 Armour & Homfrey, Lewis Creek
 Bailey, D., & Co., Central Park
 Baker Lumber Co., Ltd., Waldo
 Beaver River Lumber Co., New Westminster
 (Box 754)
 Bella Coola Lumber Co., (H. O. Hanson), Hagensborg
 Bird, Geo. H., Port Alberni

BRITISH COLUMBIA—Con.

Bowman, O., Sardis
 Brand, Fred'k, Alberni
 Bridges Lumber Co., Ltd., The, Fort Steele
 Britannia Mining & Smelting Co., Ltd., Britannia Beach
 *British Canadian Lumber Corp'n, Port Mellon and Howe Sound
 *British Columbia Mills, Timber & Trading Co., Ltd., Vancouver
 British Columbia Canning Co., Rivers Inlet
 British Columbia Mfg. Co., New Westminster
 *Brunette Saw Mill Co., New Westminster
 Buckworth, A. B., Vancouver (Crown Bldg.)
 Bulkley Valley Lumber Co., Telkwa
 Bulman Lumber Co., Ltd., Victoria
 Burns Lake Trading & Lumber Co., Hasletton
 Burrard Lumber Co., Ltd., Vancouver
 Cameron Lumber Co., Victoria
 Campbell River Lumber Co., Hazelmere
 Canadian Cedar Lumber Co., Vancouver
 Canadian Collieries (Dunsmuir) Ltd., Victoria
 *Canadian Pacific Lumber Co., Ltd., Vancouver
 *Canadian Puget Sound Lumber Co., Victoria
 Canadian Southern Lumber Co., Sidney
 *Canadian Western Lumber Co., Ltd., Fraser Mills
 Canyon City Lumber Co., Creston
 Carter, R., & Soa, Vananda
 Champion Shingle Co., Eburne
 Charteres, W. B., Milnes Landing, Sooke
 Chew, Joseph, Lumber & Shingle Mfg. Co., Vancouver
 Columbia Coal & Coke Co., (A. McEvoy, Trustee)
 Coalmont
 Converse Brown Shingle Co., Sidney
 Comox Sawmill Co., The, Comox
 Collinson Lumber Co., Sardis
 Cotton, A., Vancouver
 Cottonwood Lumber Co., Deroche
 Crawford, Wm., & Son, South Kelowna
 *Crowsnest Pass Lumber Co., Ltd., Wardner, also Galloway
 Cummings & Grinton, Larkin
 Deep Creek Lumber Co., Soda Creek
 Deer Lake Lumber Co., Burnaby Lake, also Vancouver
 Deschartnp, J. S., Rossland
 Dominion Creosoting Co., Ltd., The, Vancouver
 Doukhobor Society, Brilliant
 Duguid, J., (see Seaton Lake Mill)
 *East Kootenay Lumber Co., Jaffray
 Eburne Sawmills, Ltd., Eburne
 Edgewood Lumber Co., Ltd., Castlegar
 Elk Lumber Co., Ltd., Fernie
 False Creek Lumber Co., Vancouver
 Flauvel, P. W., Shingle Mill, Burnaby (Mill at Wolf Spur)
 Fennell, Geo., Chu Chua
 Fernridge Lumber Co., Ltd., New Westminster,
 also at Aldergrove
 Fir Tree Lumber Co., Mt. Lehman
 Forest Mills, Revelstoke, also Three Valley
 Galbraith & Sons, New Westminster also Lincoln
 Genoa Bay Lumber Co., Genoa Bay
 Gibson's Landing Lumber Co., Gibson's Landing,
 also Howe Sound
 Gill, E. L., Alberni
 Graham & McFarlane, Denman Island
 Granby Mining & Smelting Co., Granby Bay,
 (Mill at Anoxo)
 Haddon, J., & Son, (Elgin Lumber Co.) Elgin
 Hanbury Lumber Co., Vancouver
 Hanson, H. O., (See Bella Coola Lumber Co.)

BRITISH COLUMBIA—Con.

Harrison Bay Shingle Co., Harrison Mills
 Haslem Creek Lumber Co., Ladysmith
 *Hastings Shingle Mfg. Co., Ltd., Vancouver
 *Heaps, E. H., & Co., Ltd., Vancouver
 Hill-Tout & Anderson, Abbotsford
 Hopp, John, (see Jack of Clubs, Lake Mill)
 Invermere Lumber Co., Wilmer
 Iowa Lumber & Timber Co., Clowhom Falls
 Island Lumber Co., Duncans
 Jack of Clubs Lake Mill (Jno. Hopp, proprietor)
 Barkerville
 Jewell Lumber Co., Ltd., Hanbury
 Johnston & Carswell, Vernon
 Kelowna Sawmill Co., Kelowna
 Kernaghan Lumber Co., Ltd., Salmon Arm
 King Lumber Mills, Ltd., Cranbrook, also Yahk
 Kipp, Son & Co., Chilliwack
 Kirkpatrick, Thos., Vancouver (Mill at Hastings)
 Koch, Wm. C. E., Koch Siding
 Kootenay Shingle Co., Ltd., Salmo
 Lambert & Bell, Granite Siding
 Leask & Johnston, Mayook, also Ft. Steele
 Lebeau, Frank, Ferguson
 Leigh, Jas., & Sons, Victoria
 Lemon, Gonnason & Co., Victoria
 Lumby Saw Mill Co., Lumby
 Lynn Valley Lumber Co., North Vancouver, (Mill at Lynn Creek)
 Lund, P., Wardner
 McDougall, W. C., Princeton
 McInnes Lumber Co., Elkmouth, (Mill at Crownnest)
 McNair, Robert, Hastings
 McPherson, H., Trout Lake
 Maddough, J. A., Vancouver, (Mill at Yarrow)
 Magee, W. H., Salmon Arm
 Maple Grove Lumber Co., Ltd., Abbotsford
 Maple Leaf Lumber Co., New Westminster
 Menzies, J. A., Merritt
 Monarch Lumber Co., Ltd., Savona
 Moore Whittington Lumber Co., Ltd., Victoria
 Mt. Lehman Lumber, Timber & Trading Co., Ltd., Mt. Lehman
 Mundy Lake Shingle Co., Fraser Mills (Mill at Millardville)
 Munson, R., & Son, Kelowna
 Nanoose Lumber Co., Ltd., Parksville
 Newcastle Lumber Co., Ltd., Vancouver (Mill at Nanoose Bay)
 New Ladysmith Lumber Co., Ltd., Nanaimo
 New Michel Sawmill Co., New Michel
 Nicola Valley Pine Lumber Co., Canford
 North Columbia Gold Mining Co., Discovery
 Northern Construction Co., Kamloops
 Northern Lumber Co., Ft. George
 *North Pacific Lumber Co., Ltd., Barnet
 North Star Lumber Co., Elko
 North Vancouver Lumber Co., North Vancouver
 O. K. Lumber Co., Kelowna
 Oliver, Jno., Delta

BRITISH COLUMBIA—Con.

Otis Staples Lumber Co., Cranbrook
 Otter Shingle Co., Otter
 Patterson, E. O., East Chilliwack
 Peachland Lumber & Mfg. Co., Peachland
 Peavine Lumber Co., Cranbrook
 Pender Island Saw & Planing Mills, Pender Island
 Pittsburg British Gold Mining Co., Atlin
 Port Ilancy Lumber Co., Vancouver (also Ilancy)
 Port Moody Shingle Co., Port Moody
 Porto Rico Lumber Co., Ltd., Moyie
 Powell River Co., Ltd., Powell River
 Quance Sawmill, Nakusp
 *Rat Portage Lumber Co., Vancouver (Head Office Winnipeg)
 Reid, Jas., Estate of, Quesnel
 Reilly, J. R., & Co., Tappen
 Riverside Lumber Co., Natal (Head Office Calgary, Alberta)
 Robertson & Hackett, Vancouver
 Rock Creek Lumber Co., Ltd., Cranbrook
 Ross-Saskatoon Lumber Co., Waldo
 Salmon River Lumber & Shingle Co., Sperling
 Salmon River Land Co., Falkland
 San Juan Lumber Co., Port Renfrew
 Schelt Trading Co., Schelt
 Seaton Lake Mill, Lillooet
 Seymour Lake Lumber Co., Smithers
 Shawnigan Lake Lumber Co., Ltd., Shawnigan Lake
 Silverton Lumber & Power Co., Silverton
 Simpson, Ralph, Arrowhead
 Smith, Thos. K., Armstrong
 Small & Bucklin Lumber Co., New Westminster
 South Shore Lumber Co., Vancouver
 Sovereign Lumber Co., Annis
 Sparwood Lumber Co., Sparwood
 Standard Lumber Co., Ltd., Cranbrook
 Summerland Timber Co., West Summerland
 Summit Lake Lumber Co., Ltd., Summit Lake
 Surrey Shingle Mfg. Co., Cloverdale
 Symons, A. M., Nakusp
 Taylor Lumber Co., Ltd., The Kimberley
 Terminal Lumber & Shingle Co., Vancouver
 Timberland Lumber Co., New Westminster
 Tomkinson, Arthur, Deep Creek
 Trail Lumber Co., Ltd., Paulson
 *Vancouver Lumber Co., Ltd., Vancouver
 Vancouver-Nanaimo Coal Mining Co., Ltd., Vancouver
 Vancouver Power Co., Coquitlam
 Varsveld Bros., Fruityvale
 *Victoria Lumber & Mfg. Co., Ltd., Chemainus
 Wellesley Lumber Co., South Wellington
 Western Box & Shingle Mills, Nelson
 Western Canada Timber Co., Ltd., Nelson
 Western Pine Lumber Co., Ltd., Grand Forks
 Westholm Lumber Co., Sicker Sliding
 Yahk Lumber Co., Ltd., Yahk

APPENDIX No. 2.

LIST OF ACTIVE CANADIAN PULP-MILLS.

The following is a list of firms operating pulp-mills in Canada in 1913 to whom the Forestry Branch is indebted for the data upon which this bulletin is compiled:

QUEBEC.

- Basin Electric Light and Power Co., Ltd., Montmagny—Ground-wood Pulp.
Belgo-Canadian Pulp and Paper Company, Ltd., Shawenegan Falls — Ground-wood Pulp.
Brompton Pulp and Paper Company, Ltd., Bromptonville—Ground-wood Pulp.
Brompton Pulp and Paper Company, Ltd., East Angus (2 mills) — Ground-wood Pulp and Sulphite Fibre.
Canada Paper Company, Ltd., Windsor Mills (2 mills) — Ground-wood Pulp and Soda Fibre.
Chicoutimi Pulp Company, Chicoutimi—Ground-wood Pulp.
Dalmas Pulp Company, Dalmas—Ground-wood Pulp.
Dominion Paper Company, Kingsey Falls (2 mills), (office Montreal) — Ground-wood Pulp and Sulphate Fibre.
Ediev, E. B., Co., Ltd., Hull (2 mills)—Ground-wood Pulp and Sulphite Fibre.
Jacques Cartier Pulp and Paper Company, Pont Rouge (office Montreal) — Ground wood Pulp.
Jonquieres Pulp Company, Ltd., Jonquieres (2 mills)—Ground-wood Pulp and Sulphite Fibre.
Lake Megantic Pulp Company, Lake Megantic—Ground-wood Pulp.
Laurentide Company, Limited, Grand Mère, (2 mills)—Ground-wood Pulp and Sulphite Fibre.
Maclaren, James, Company, Ltd., Buckingham—Ground-wood Pulp.
Menier Estate, Ellis Bay, Anticosti Island—Ground-wood Pulp.
News Pulp and Paper Company, Ltd., St. Raymond (office Montreal), —Ground-wood Pulp.
Nicolet Falls Pulp and Lumber Company, Nicolet Falls—Ground-wood Pulp.
North Shore Power Railway and Navigation Co., Clarke City—Ground-wood Pulp.
Ouiatchouan Falls Paper Company, Ouiatchouan Falls (office Chicoutimi) — Ground-wood Pulp.
Price Brothers and Company, Ltd., Kenogami (office, Jonquieres) (2 mills)—Ground-wood Pulp and Sulphite Fibre.
Price-Porritt Pulp and Paper Company, Rimouski—Ground-wood Pulp.
Quebec and St. Maurice Industrial Company, La Tuque (Office Portland, Maine)—Sulphate Fibre.
River du Loup Pulp Company, Ltd., Fraserville—Ground-wood Pulp.
Soucy, F. Florentin, St. Antonin (office, Old Lake Road)—Ground-wood Pulp.
Union Bag and Paper Company, Cap Magdeleine (office New York, N.Y.) —Ground-wood Pulp.
Wayagamack Pulp and Paper Company, Ltd., Three Rivers—Sulphate Fibre.
Wilson, J. C., Ltd., St. Jerome—Ground-wood Pulp.

ONTARIO.

- Bronson Company, Ottawa—Ground-wood Pulp.
 Booth, J. R., Ottawa (2 mills)—Ground-wood Pulp and Sulphite Fibre.
 Colonial Wood Products Company, Ltd., Thorold—Ground-wood Pulp.
 Davy Pulp and Paper Company, Ltd., Thorold—Ground-wood Pulp.
 Dryden Timber and Power Company, Ltd., Dryden—Sulphate Fibre.
 Foley-Rieger Pulp and Paper Company, Ltd., Thorold—Ground-wood Pulp.
 Lake Superior Paper Company, Ltd., Sault Ste. Marie (2 mills) (now Spanish River Pulp and Paper Mills, Ltd.)—Ground-wood Pulp and Sulphite Fibre.
 Northumberland Paper and Electric Company, Ltd., Campbellford—Ground-wood Pulp.
 Ontario Paper Company, Ltd., Thorold—Ground-wood Pulp.
 Toronto Paper Manufacturing Company, Ltd., Cornwall—Sulphite Fibre.
 Riordon Pulp and Paper Company, Ltd., Hawkesbury—Sulphite Fibre.
 Riordon Pulp and Paper Company, Ltd., Merritton—Sulphite Fibre.
 Spanish River Pulp and Paper Mills, Ltd., Sturgeon Falls (2 mills)—Ground-wood Pulp and Sulphite Fibre.
 Spanish River Pulp and Paper Mills, Ltd., Espanola—Ground-wood Pulp.
 Thorold Pulp Company, Ltd., Thorold—Ground-wood Pulp.

NOVA SCOTIA.

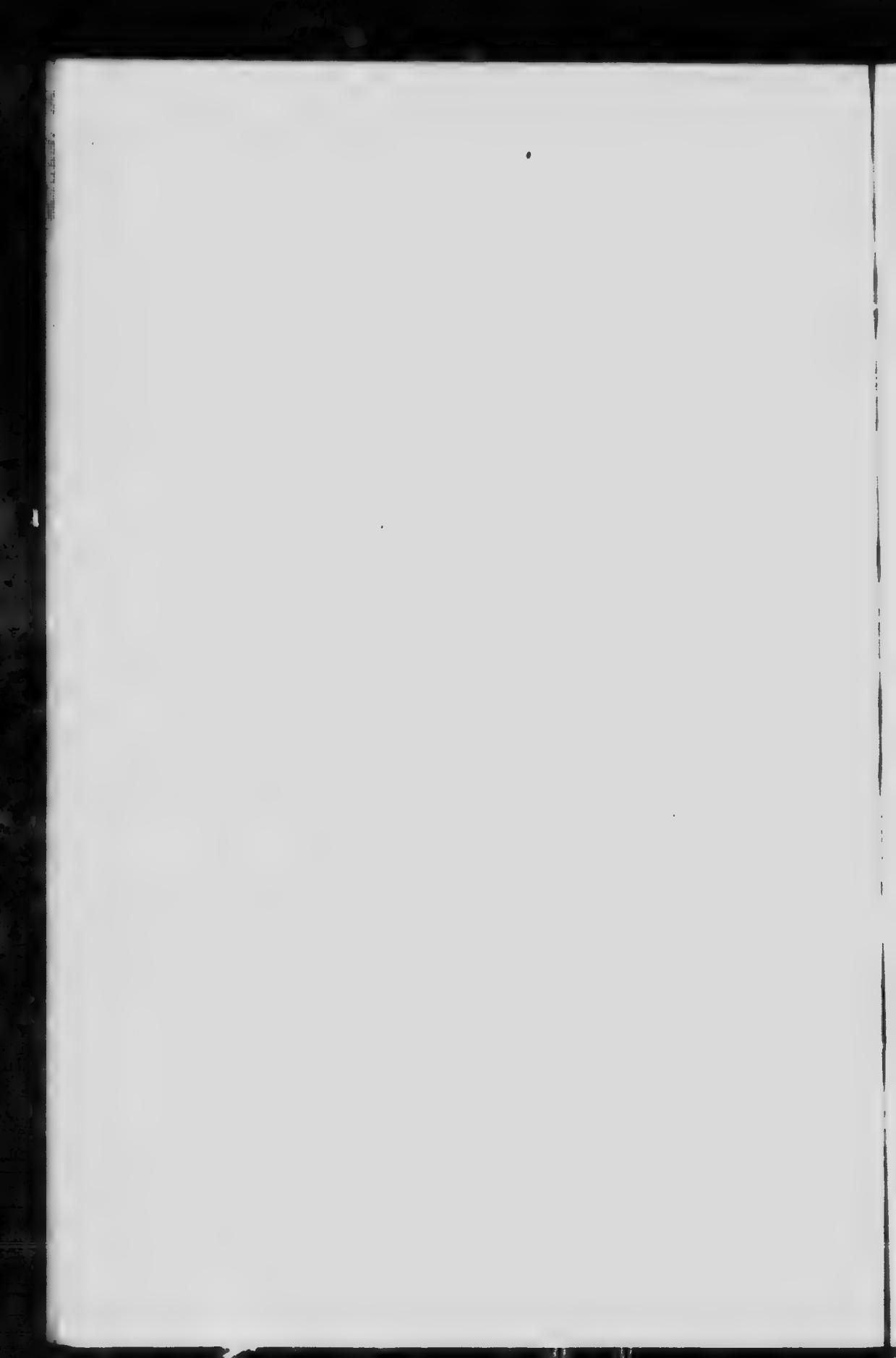
- Campbell Lumber Company, Ltd., Weymouth, (2 mills)—Ground-wood Pulp.
 Clyde River Pulp and Paper Company, Ltd., Clyde River—Ground-wood Pulp.
 La Have Pulp Co., Ltd., New Germany (office Bridgewater)—Ground-wood Pulp.
 MacLeod Pulp Company, Ltd., Milton (2 mills) (office, Liverpool)—Ground-wood Pulp.

NEW BRUNSWICK.

- Dominion Pulp Company, Ltd., Chatham—Sulphite Fibre.
 New Brunswick Pulp and Paper Co., Ltd., Millerton—Sulphate Fibre.
 Partington, Edward, Pulp and Paper Company, Ltd., St. John—Sulphite Fibre.
 St. George Pulp and Paper Company, Ltd., St. George—Ground-wood Pulp.

BRITISH COLUMBIA.

- British Columbia Sulphite Fibre Company, Ltd., Mill Creek, Howe Sound, (office, Vancouver)—Sulphite Fibre.
 Powell River Company, Ltd., Powell River (2 mills)—Ground-wood Pulp and Sulphite Fibre.

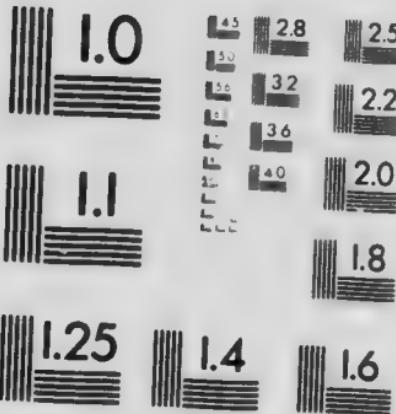






MICROCOPY RESOLUTION TEST CHART

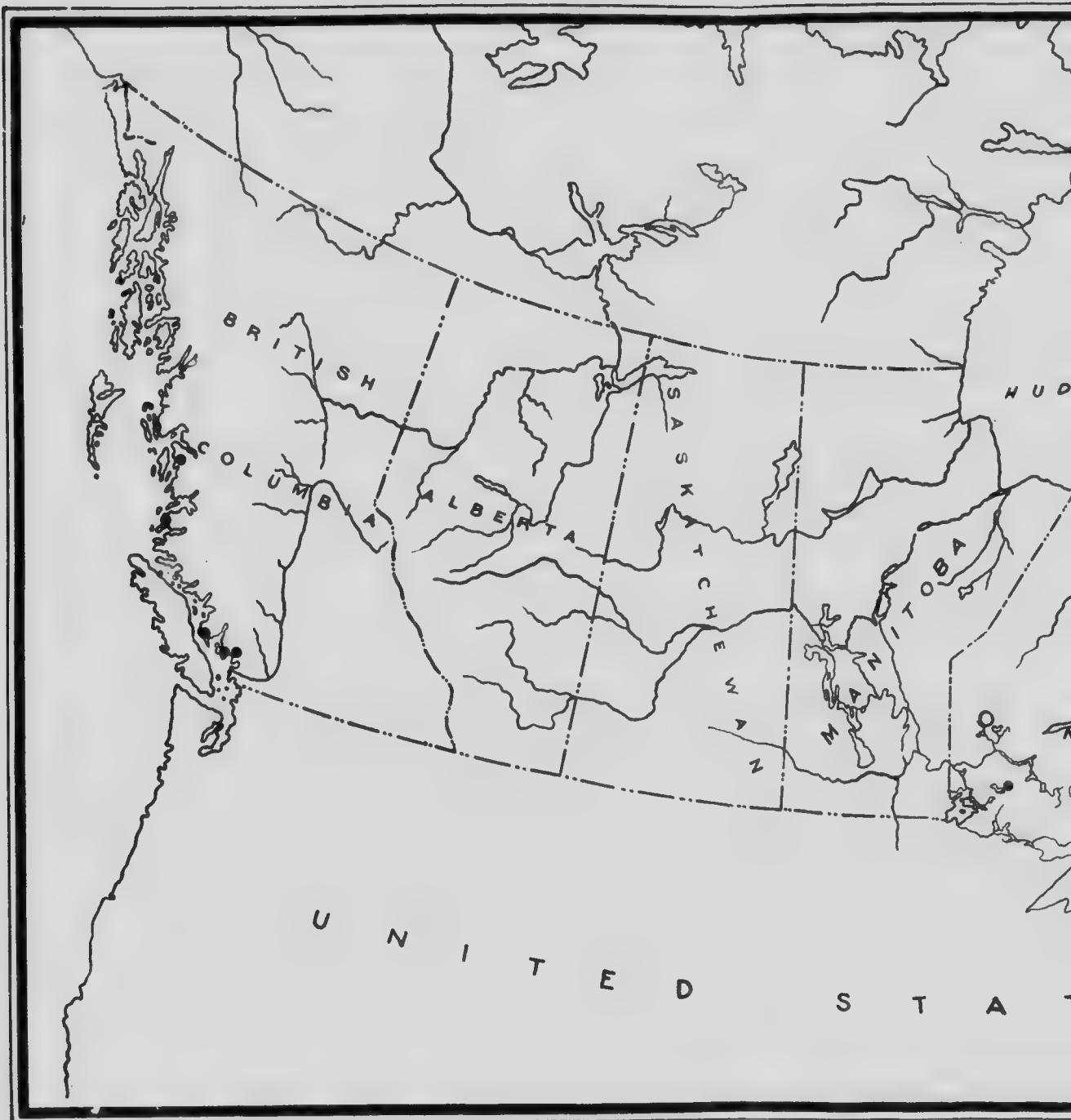
(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1657 175th Main Street
Rochester, New York 14626
TEL 482-7171 FAX 482-7172
TEL 288-5389 FAX

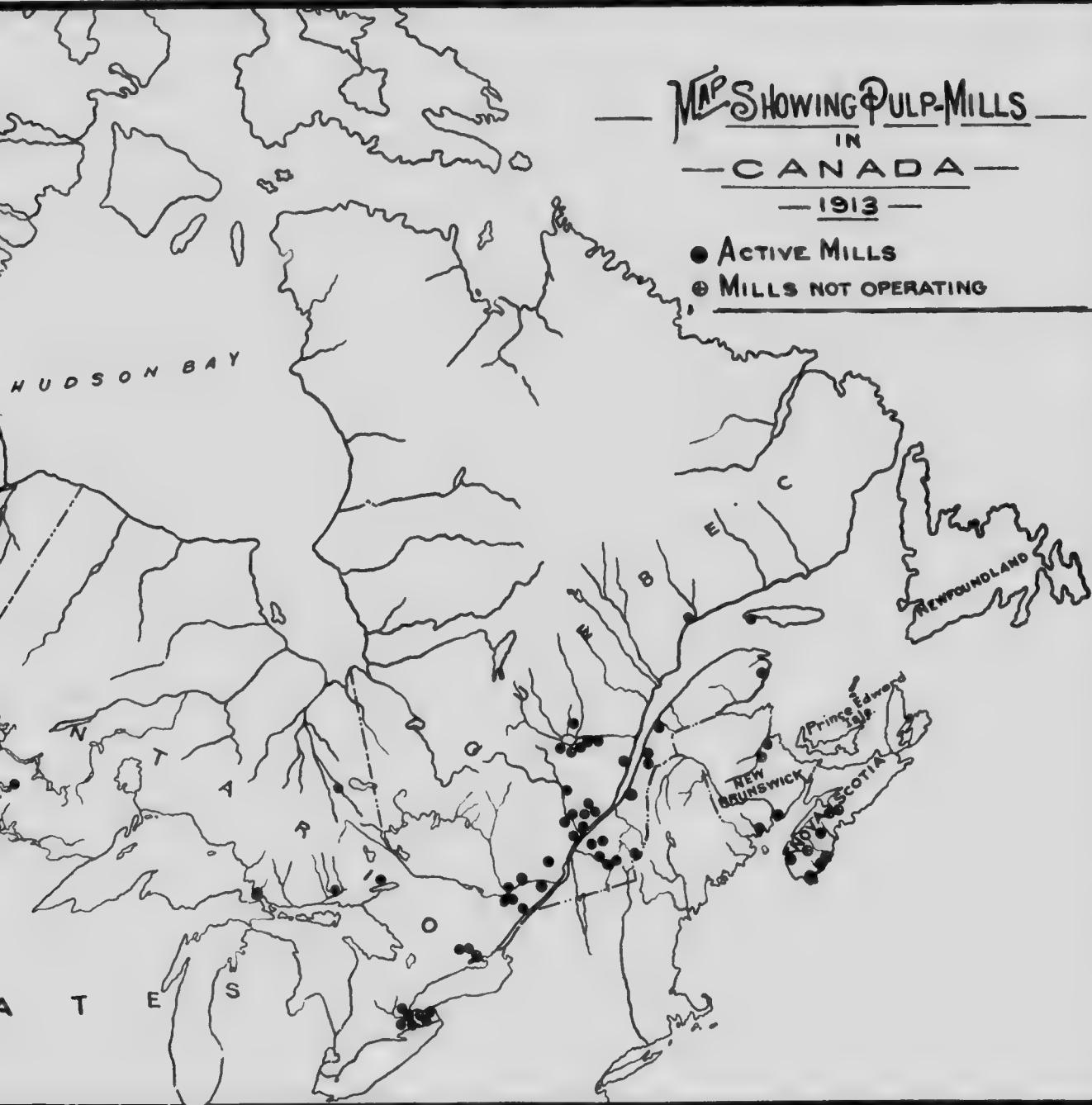


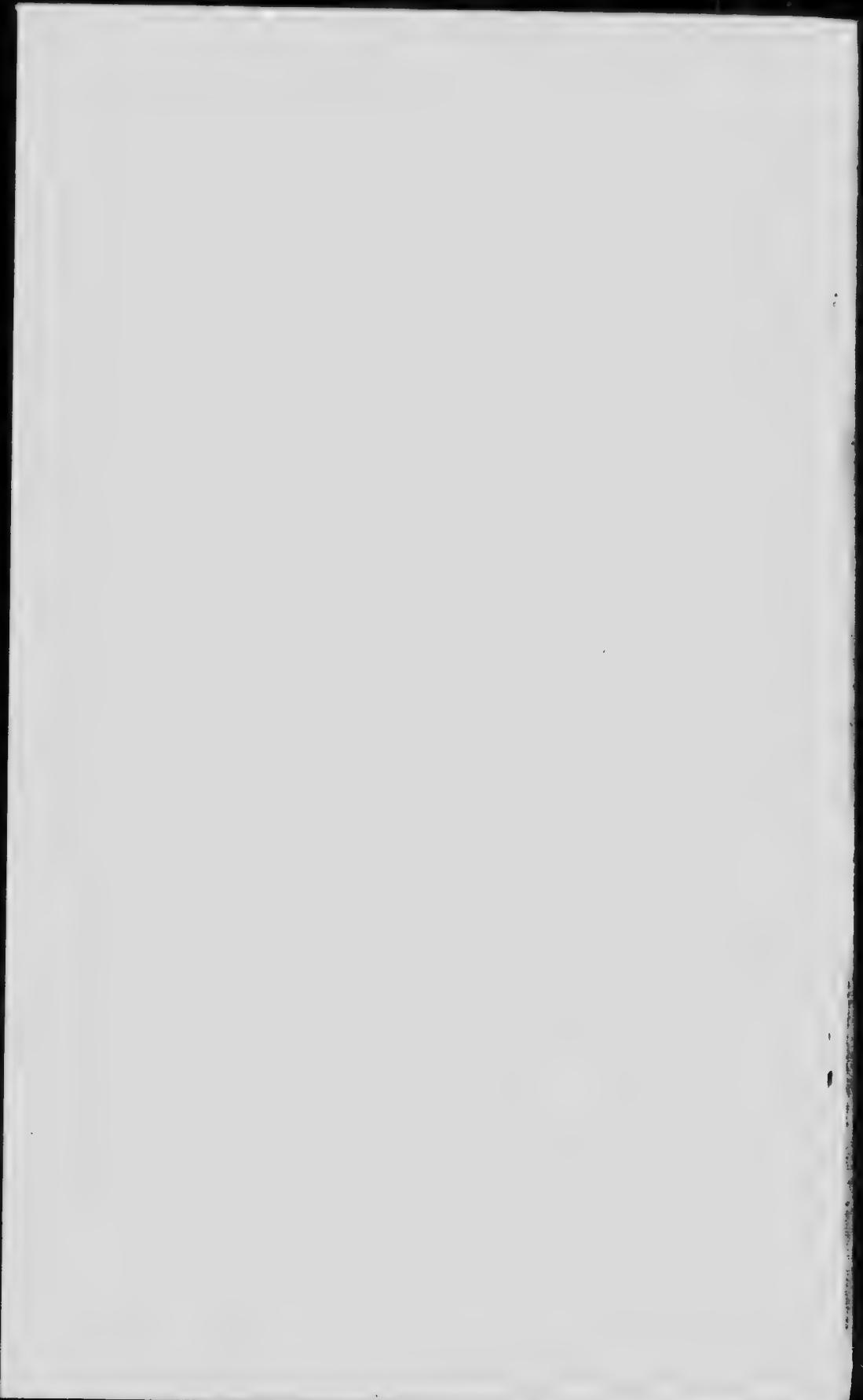


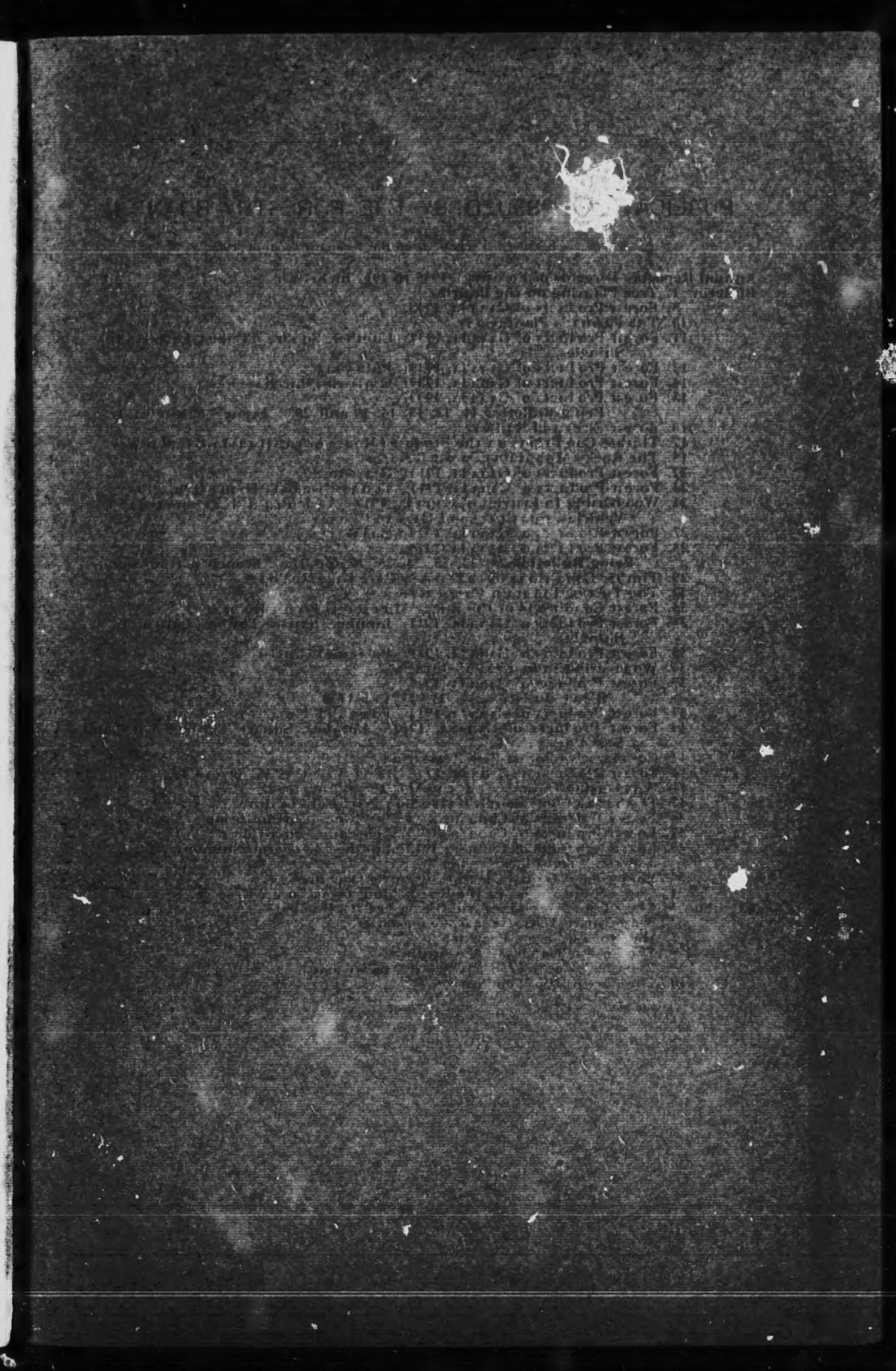
75429

— MAP SHOWING PULP-MILLS —
IN
CANADA —
— 1913 —

● ACTIVE MILLS
◎ MILLS NOT OPERATING







PUBLICATIONS ISSUED BY THE FORESTRY BRANCH.

(Where number and title are omitted the document is out of print.)

Annual Reports—Director of Forestry—1905 to 1911 inclusive.

- Bulletin 1. Tree Planting on the Prairies.
" 8. Forest Products of Canada, 1908.
" 10. The Farmer's Plantation.
" 11. Forest Products of Canada, 1909: Lumber, Square Timber, Lath and Shingles.
" 12. Forest Products of Canada, 1909: Pulpwood.
" 14. Forest Products of Canada, 1909: Cross-ties Purchases.
" 15. Forest Products of Canada, 1909.
 (Being Bulletins 11, 12, 13, 14, 19 and 20.) French edition only.
" 16. Forest Fires and Railways.
" 17. Timber Conditions on the Proposed Route of the Hudson Bay Railway.
" 18. The Rocky Mountains Forest Reserve.
" 22. Forest Products of Canada, 1910: Cross-ties.
" 23. Forest Products of Canada, 1910: Timber Used in Mining Operations.
" 24. Wood-using Industries of Canada, 1910: Agricultural Implements and Vehicles, Furniture and Cars and Veneer.
" 27. Forest Products of Canada, 1910: Cooperage.
" 28. Forest Products of Canada, 1910.
 (Being Bulletins 21, 22, 23, 24, 25, 26 and 27.) French edition only.
" 29. Timber Conditions in the Lesser Slave Lake Region.
" 32. The Turtle Mountain Forest Reserve.
" 33. Forest Conditions in the Rocky Mountains Forest Reserve.
" 34. Forest Products of Canada, 1911: Lumber, Square Timber, Lath and Shingles.
" 35. Forest Products of Canada, 1911: Poles and Cross-ties.
" 36. Wood-using Industries of Ontario.
" 37. Forest Products of Canada, 1911.
 (Being Bulletins 30: 31, 34 and 35.)
" 39. Forest Products of Canada, 1912: Poles and Ties.
" 40. Forest Products of Canada, 1912: Lumber, Square Timber, Lath and Shingles.
" 42. Co-operative Forest Fire Protection.
" 43. Forest Products of Canada, 1912 (Being Bulletins 38, 39 and 40.)
" 44. Wood-using Industries of the Maritime Provinces.
" 43. Timber and Soil Conditions in Southeastern Manitoba.
" 46. Forest Products of Canada, 1913: Pulpwood Consumption.
" 47. Forest Products of Canada, 1913: Poles and Cross-ties.
" 48. Forest Products of Canada, 1913: Lumber, Lath and Shingles.
" 49. Treated Wood-block Paving.
" 50. Wood-using Industries of the Prairie Provinces.
" 51. Game Preservation in the Rocky Mountains Forest Reserve.
Circular 5. Planning a Tree Plantation for a Prairie Homestead.
" 6. Preservative Treatment of Fence-posts.
" 7. Manitoba a Forest Province.
" 8. The Forest Products Laboratories.
" 9. Chemical Methods for Utilizing Wood Wastes.
" 10. The Care of the Woodlot.



